Forest Resources Commission

Forest Practices Code

Background Papers

1. Summary of Public Workshops
- Salasan and Praxis

2. Forest Practice Guidelines and Regulations
- P.K. Eligh and N.P. Macleod

3. Economic and Environmental Impacts
- Bowell Consultants Ltd.

B. C. Forest Resources Commission

A Forest Practices Code

The Summary of Six Public Workshops to Review the Forest Practices Code Options Paper

Organized and Prepared by:

Salasan and Praxis

May 20, 1992

INTRODUCTION

In the Report "The Future of Our Forests", the B.C. Forest Resources Commission recommended changes to the way the province's forests are managed. One of the major recommendations contained in this report was that a single, all encompassing code of forest practices be developed. Following this recommendation, the Ministry of Forests released a discussion paper titled "A Forest Practices Code" to solicit public input on the scope, content and structure of the Code. Following this, the Minister of Forests announced that the Code would be developed by the B.C. Forest Resources Commission as a topic of inquiry and to make recommendations to the government.

The initial stage saw 208 written submissions from the public which were analyzed and used as input in the development of the regional workshops which were then undertaken during early May, 1992. Six workshops were held over two weekends. The first three workshops were held on May 1 to 3, 1992 in Kelowna, Victoria and Cranbrook. The second set were held on May 8 to 10, 1992 in Vancouver, 108 Mile and Prince George. Regional representatives of government, industry, native organizations and environmental groups were invited to attend the sessions. Over 300 participants were invited to the sessions and close to 200 actually participated. A Forest Practices Code Options Paper and summary document were prepared and provided to all the participants attending the workshops.

ORGANIZATION OF THE REPORT

This Summary of the six workshops presents the overall direction from the participants following their review of the objectives and principles of the Code. This is followed by a summary of participant responses to the options presented in the Options Paper.

Finally, a summary of each of the six workshops has been prepared and submitted individually to the Commission for their evaluation. Workshop participants are to receive this overall summary as well as the workshop summary in which they participated.

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OBJECTIVES AND PRINCIPLES

Workshop participants were invited to comment on the objectives and principles put forward by the Forest Resources Commission as fundamental to the development of a Forest Practices Code. Their detailed comments are provided in the summaries of each workshop. While there was considerable variation among the six workshops regarding the exact wording of the statements, the participants described the desirable characteristics of a Forest Practices Code along these lines:

• The Code should apply to all forest lands and all forest uses, recognizing that the job of the Commission on Resources and Environment (CORE) will be to define "forest land" and to designate the overall land use pattern and the areas where the Code's provisions would apply. The Code also needs to be placed in the context of other environmental management initiatives such as those of the Round Table, Land Use Strategy, Old Growth Strategy, and Environmental Assessment...

• "Forestry" and "Forest Uses" should be terms which are interpreted broadly, with the result that the Code should refer to practices involving a wide range of forest resources and their associated values.

• The Code should emphasize clear processes to develop locally relevant prescriptions and should be based upon a firm foundation of scientific knowledge, resource inventory and public values. Practices specified in the Code should also reflect safety considerations relevant to all forest users.

• The Code should provide minimum provincial standards for practices on forest lands but the application of these standards should be flexible in response to the varying ecological conditions found throughout the province. The Code must also be responsive to changing social values, new scientific information, new technology and the results of field experience.

• While basic minimum standards and the mechanisms of monitoring, audit and enforcement should be developed to ensure compliance with practices that lead to sustainable uses of the forest, the Code should also encourage superior performance through positive incentives.

•Introduction of the Code should go well beyond the establishment of standards, incentives and sanctions to compel compliance. It should include a positive program of communications, education and training to assist forest users and resource managers to apply the code effectively in practice.

• While the Code should respect the cost implications of compliance to the many forest users, setting and enforcing environmental standards should be rigorous enough to ensure protection of the integrity and long term productivity of forest ecosystems.

• While it is necessary to take into consideration the international marketplace in which the forest using industries must compete, the provisions of the Code should not be set at a level to reflect competition with countries that have lower standards of environmental protection.

• There needs to be administrative and jurisdictional integration among government agencies to ensure that the Code is consistently applied to all forest users regardless of the agency that manages a particular resource or responds to a particular set of clients. Proliferation of bureaucracy or additional levels of administration should be minimized.

• The Code should be open to public participation in its creation, application and revision. The public participation process should focus at the local level to ensure that the provisions of the code and its application are responsive both to ecological and economic aspects of community stability. This recognizes that the key to long term sustainability of communities is the maintenance of the long term health of the full range of forest resources.

• Public engagement in administration of the code should include avenues for public access to information including audits of performance and for appeal of decisions by affected parties.

SUMMARY OF PARTICIPANT RESPONSES TO OPTIONS

Workshop participants considered options presented by the Forest Resources Commission in "A Forest Practices Code Options Paper." A total of 22 options were presented in the paper. The workshops provided an opportunity among the participants for considered discussion about the options and choices to be made in developing a Forest Practices Code. The workshop notes and summaries provide thoughtful and often detailed advice to the Commission. The following summary of the option package discussed at the workshops is intended as an overview only, not as a definitive expression of all the participants' views. Individual workshop summaries should be reviewed for more specific comments.

CHAPTER 3 - FORMAT OF THE CODE

Option 1 - Structural Elements
A: Prescriptive Legislation
B: Enabling Legislation
C: Voluntary Compliance

Every group in the workshops felt that the Code should be established through **Enabling Legislation** (Option 1B). Participants felt that the legislative base should be broad, simple and allow for responsiveness to local conditions.

Option 2 - Functional Elements
A: Single Code and IRM
B: IRM and Multiple Codes
C: Single Code Emphasizing Timber Mgt. and Protection

Most groups in the workshops preferred Option 2A, **Single Code and Integrated Resource Management**. It was also recognized by participants that activities associated with timber harvesting and management are presently the most extensive and intrusive forest use so the initial emphasis in developing a Code should be on practices related to those activities. Participants felt that as a goal, the Code should apply to all forest users and all activities in the forest.

Option 3 - Activity vs. Objectives Based
A: Activity Based Code
B: Objectives Based Code

While workshop participants agreed that the Code should be based on **Objectives** (Option 3B), it was also the view of many that activities should be considered in the Code. Several groups stated that activities should fall under objectives in the Code and that while objectives might provide the means for monitoring the effectiveness of the Code, activities can provide the basis for more specific rules and regulations.

Option 4 - Results vs. Process
A: Results-oriented Code
B: Activities-oriented Code

Many groups commented that results and process should not be separated. While a **Results-oriented Code** (Option 4A) is preferred and compatible with a Code based on meeting Objectives (Option 3B), it is important that a clear process for achieving results is contained in the Code.

CHAPTER 4 - APPLICABLE LANDS

4.1 Public Land
Differentiate between the roles of:
A. Land Use Planning; and
B. Forest Practices Code

Groups generally agreed that land use planning and a Forest Practices Code are linked and there is not a clear point at which one ends and the other begins. While the Commission on Resources and Environment (CORE) is developing a provincial land use strategy and responsibility, a Forest Practices Code is not an explicit part of CORE's mandate. Participants felt that the two elements should be developed in conjunction to facilitate optimum results in both land use planning and forest practices. Land use plans could establish goals and objectives for an area, while the Forest Practices Code could facilitate Integrated Resource Management planning and delivery of those objectives.

Option 5 - Private Land
A: All private forest land
B: Managed private forest land
C: No private forest land

There was a wide spread of opinion on this option statement. Some participants and workshop groups believed that the Code should apply to all forest users and **all forest land**, private and public (including federal lands), as a matter of basic principle. Other participants felt that it would be **beyond the scope of the Code** to influence use of private land. While some form of application of the Code was thought desirable for managed forest land, participants did not reach common agreement on how this should be accomplished. It was commonly felt that the Code should encourage the management of private lands as forests, rather than serve as a disincentive, but the issue was seen as **requiring more consideration** than the options paper suggests.

Option 6 - Conversion to Other Uses
A: Include conversion in Code
B: Apply only to forest management activities

While it was felt by some groups that the Code should apply to all activities that affect forest land, it was generally agreed that conversion to different land uses is a land use planning question **outside the scope of a Code**.

CHAPTER 5 - ADMINISTRATION

Option 7 - Functions of Administration
A: MoF does the monitoring
B: Internal monitoring and external audit

There was general support for Option 7B, **internal monitoring and external audit**. Participants stressed that audits must be independent and external to ensure public credibility. It was also felt that Ministries and licensees should monitor forest practices for their own purposes. Several workshop groups felt that monitoring is clearly a government responsibility. It was noted that monitoring is an essential learning device to encourage voluntary internal improvements in practices.

Option 8 - Role of Audits
A: Current audit arrangements
B: New audit branch
C: Independent auditors

Participants most frequently favoured the use of **independent auditors** (Option 8C) to carry out audits on forest management practices. It was felt that credibility is the major issue in this situation and the auditors must be clearly seen by the public to be independent of government or industry influence. Concern was expressed over the exact scope and nature of audits and the possibility of instituting additional layers of bureaucracy. It was felt that audit quality and consistency should be top priorities and that audit reports should be publicly available.

Option 9 - Administrative Organizations
A: Status quo
B: New public organizations
C: Community Forest Resource Boards
D: Forest Practices Board

There was a **wide spread of opinion** in discussing this option. While participants could see some rationale for each of the options, many were reluctant to specify a single choice for an administrative organization before the functions of the organization are clarified. Some common themes from participants included the need to minimize additional bureaucracy, the need for additional local input and involvement, and decentralization of government agencies. Several workshop groups saw the need for both a provincial level Forest Practices Board and Community Forest Resource Boards. A common concern, however, was the need for accountability in any administrative organization.

CHAPTER 6 - INCENTIVES AND PENALTIES

Option 10 - Incentives
A: Marketing Seal
B: Increased flexibility and efficiencies
C: Increased security of tenure
D: Liability insurance
E: Stewardship performance bonds

Participants felt that the Code should use incentives to encourage performance above minimum requirements. It was thought that the Code should emphasize a positive approach utilizing incentives to good practice, rather

than focusing unduly on penalties. Participants generally recommended a **combination of the options** presented. Concern was expressed over the nature of any increase in **security of tenure** (Option 10C) that might be offered as an incentive and its mutual acceptability to the public and to the licensee. If a **Marketing Seal** (Option 10A) is considered, participants recommended that it be independent of government and represent an above minimum standard to be credible. One group recommended that **Stewardship Performance Bonds** (Option 10E) be linked to monitoring and auditing procedures (Options 7 and 8). The monitoring and auditing procedure is also linked to Option 10B, **increased flexibility and efficiencies**.

Options 11, 12 &13 - Penalties

Option 11 - Removal or Suspension of Licenses
A: Automatic suspension or cancellation
B: Technical suspension of license

Option 12 - Fines
A: Administrative fines
B: Court fines

Option 13 Imprisonment
A: Imprisonment
B: Status quo

Participants felt that **a range of penalties is needed** to properly enforce the Code and that the penalty should fit the crime. This could involve all of the options presented in the discussion paper. At one workshop a set of principles for penalties and incentives were outlined which summarize many of the comments from other participants:
1) the Code must have penalties and incentives which are enforceable and enforced;
2) penalties and incentives should be commensurate with the crime and equally applied;
3) there should not be a profit in crime (the penalty should deter the crime);
4) performance and violations must have measurable and objective criteria;
5) incentives must be meaningful to encourage enhanced stewardship;
6) incentives should be linked to increased productivity of the land base;
7) incentives and penalties should apply to all forest users; and
8) public recognition (and scorn) is an appropriate mechanism to promote enhanced stewardship.

Option 14 - Enforcement Climate
A: Enforcement is automatically applied
B: Independent body

Most groups preferred an **alternative option statement** involving both an independent body and enforcement by government agencies. Comments from participants included the need for "Whistle Blower" protection, concern over the potential to clog the Court system in enforcing the Code, and the need for publicly visible enforcement. Several groups commented that public audits would be the key to improved enforcement. It was recommended that repeat offenders be subject to increased penalties and increasingly frequent audits.

CHAPTER 7 - TRAINING AND EDUCATION

Option 15 - User Certification
A: Mandatory certification
B: Voluntary certification

Groups generally recommended a **combination of Options A and B**, both mandatory and voluntary certification. It was felt that requirements for certification should increase with the degree of responsibility that a job or activity entailed. Many participants believe that this issue is linked with the need for ongoing education of all people in B. C. about forest ecology and forest values. The Code should instill a land ethic and any user certification should be oriented to that purpose. A common concern was the potential for increased bureaucracy and inefficiency involved with any certification procedures.

Option 16 - Public Information
A: Comprehensive Code document
B: Explanatory publication

Participants felt that **both** a Comprehensive Code document and an Explanatory publication (Options A and B) are needed. Both are needed to reach different audiences. A comprehensive document could be available at cost at central locations and a summary explanation widely available free of charge.

CHAPTER 8 - PUBLIC INVOLVEMENT

Option 17 - Public Audits
A: Annual Report
B: Local public release of audits
C: Detailed and general reports

Almost every workshop group preferred a **combination of all three options**. It was repeated by participants that publicly available audits are needed to enhance public trust and credibility. Concern was expressed over the potential for significant costs to complete thorough audits and the need to define what is intended in audits and monitoring programs. It was also recommended that there be an opportunity for companies or individuals to review audits and modify their actions prior to their public release.

Option 18 - Public Empowerment
A: Appointed Advisory Boards
B: Elected Management Boards
C: Combination Boards
D: Use existing organizations

There was **no consensus** among participants of recommendations to the Commission on the options in this section of the discussion paper. Some participants felt that this issue is the responsibility of the Commission on Resources and Environment (CORE) and that the framework of the Code should follow their recommendations. Support was expressed for creating both a provincial body and community resource boards. It was felt that these bodies should be both representative of, and accountable to, the public. It was commonly suggested that such bodies would have both appointed and elected members and reflect a range of the interests and values associated with the forests in an area.

Option 19 - Public Appeal
A: Administrative appeal
B: Forced mediation
C: Private judgment services
D: Court appeal
E: Ministry Review Panel

No clear consensus was reached by workshop participants on the nature of appeal mechanisms. Several groups commented that they were reluctant to recommend a particular mechanism as it was not clear what would be appealed by whom at this point in the development of a Code. A combination

of appeal mechanisms was most commonly recommended, with existing appeal mechanisms used when possible. Concern was expressed that appeal mechanisms not become the decision making process and that they should minimize use of the Courts. One group suggested an alternative statement involving three levels of appeal: 1) a Forest Practices Board to apply fines and hear first level appeals (mediation and negotiation); 2) a Tribunal separate from the Board to hear second level appeals; and 3) the Courts if no resolution at the other levels of appeal.

CHAPTER 9 - DEVELOPMENT PROCESS

Option 20 - Timing
A: Priority development
B: Non-priority development

All groups favoured Option 20A, **priority development** of a Code. Caution was expressed, however, that we do not rush into an unworkable Code, the development process needs to be reasoned and considered. It was also noted that development of the Code is "a priority among others," such as the rate of cut, land use planning and need to develop resource inventories.

Option 21 - Public Involvement
A: Stakeholder representation
B: Broad public discussions

Participants recommended a combination of Option 21 A and B, **both stakeholder representation and broad public discussion**. An open development process is needed with ongoing public involvement and broad community representation.

Option 22 - A Living Code
A: A learning organization
B: Periodic review

Most participants recommended a combination of the options, **a learning organization and periodic review**. Participants recognized that the Code must be dynamic with mechanisms to update and change on a regular enough basis to incorporate new technology, data and values.

B. C. Forest Resources Commission

A Forest Practices Code

Summary of Public Workshop

Cranbrook, May 1-3, 1992

Prepared by:
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Chief Facilitator

for:
Salasan and Praxis

1.0 Introduction

This workshop is part of a series of workshops organized for the B. C. Forest Resources Commission to discuss the implications of and make recommendations for implementing a Forest Practices Code for British Columbia.

Nineteen participants attended the workshop. The following commissioners were present: Garry Sharpe, David Haywood-Farmer and J. (Phil) Hallinan.

The report discusses the various options and recommendations selected by the participants as well as some of the rationale for selecting the options.

A summary of the options and recommendations can be found in a matrix format in Appendix 1.

OBJECTIVES, CONSTRAINTS, PRINCIPLES AND MANAGEMENT INSTRUMENTS

K - Kupfer Group
M - MacLeod Group

Objectives:

1-K To establish the standards necessary for enhanced stewardship that recognize and include the importance of all forest values while maintaining the biological health and physiological capacity of the forest. (additional suggestion includes landscape values)

M As is.

2-K To give fair and equitable consideration to all forest users through the application of performance standards on the provincial, regional and local basis.

M Should include the idea of standards that vary geographically and by level (i.e. provincial, regional, local). In fact, that diversity in standards may be healthy.

3-K To create a flexible management system that allows standards to be dynamic to changing requirements of time, physical alterations to the land base and social values.

3a To recognize that there is a responsibility on the part of all people who share this habitat / provincial land base / environment.

M Add "... and provides clear direction to the user".

4-K To provide an open and timely decision-making process that is accountable to the public and has continuous public input and participation.

M As is.

5-K To provide assurance to concerned individuals both local and international that the forests of B. C. are being managed in a technologically correct and ecologically sensitive manner.

M Reverse "ecologically sensitive and technically correct" to reflect their relative importance and add "national".

6-K To increase the public's understanding of forest management practice in B. C.

M Add "...through the provision of balanced literature and objective independent facts."

Note:

1) This should be the job of all government agencies and forest users.

2) Information should be available outside of office hours and might take the form of libraries with maps, etc.

3) There is also a need to satisfy media demand.

4) Provide both good and bad news. This will reinforce credibility with the public.

5) There should also be a continuity in the information provided.

Collectively, these will improve public understanding and eliminate cynicism.

7-K To be cost effective and enforceable.

M Add "understandable".

Note: Cost effectiveness and enforceability should not drive standards. There must be a minimum acceptable practice.

Additional Ideas:

K-a. Add a concept of aesthetic values or recognition of them.

b. There are so many values that they can't be separated or singled out (e.g. spiritual, cultural, family, historical).

c. Relates to objectives 4.5 and 6 - Include a mechanism for change, dispute resolution, responsive, appropriate and accountable public participation.

d. Add to introduction or preamble: There is a need to place this code in the context of other environmental management initiatives (e.g. round table, land use strategy, old growth strategy, environmental assessment initiatives.

Additional Ideas:

M-a. To provide standards of practice that are linked up to land use decisions.

b. To develop a code that, at a provincial level, requires that specific topics and concerns be addressed.

c. To develop locally generated standards that may be enhanced but not rejected or relaxed at a higher level.

Constraints:

1-K As is.

M There may also be a need to review and re-align agency mandates.

2-K As is.

M As is.

3-K There is some uncertainty about the amount of authority, responsibility and accountability that should be given to advisory and decision-making boards.

M As is.

4-K As is. Can be overcome with a proper dispute mechanism and public input.

M As is.

5-K As is.

M Forestry sector resistance depends on the kind of change being proposed, the individual company or agency office, and economic cycles.

6-K Additional thoughts: a) need independent, credible resource data. b) need to have data that addresses the social dimension. c) we don't have an adequate process for identifying and handling social data. d) we should adopt a scientific view of social values for research purposes.

M Resource data gaps for all forest values make guideline development difficult. There is a need for a "base" or minimum of information before decisions are taken. The ability to provide this resource data is linked to economic cycles. This is particularly true with the private sector.

7-K Add: There is a lack of funding for forest management and other resource values.

M Also linked to economic cycles.

Additions:

K - The legal approach to resolving problems "challenge everything, agree to nothing" can be a serious restraint.

- Not taking time to sell projects to the community and get funding commitment up front.

M - Undetermined resource priorities make the development of the code objectives difficult. Presently, timber tends to predominate.

- Our options are limited from past forest practices.

- Events in the forest (e.g. blow-down) require that the code have some flexibility.

Principles:

1-K The code should be based on integrated management for all forest values, including fish and wildlife, air, water, soil, range, recreation, timber management, as well as other social and aesthetic values.

M Delete the list from "including, ..." onwards.

2-K The code should recognize that the physical and biological capacity, including biodiversity, of the forest is a key to the long-term health of all forest values.

M As is.

3-K The safety of humans should be considered a high priority.

M This principle should reflect that long-term human safety, not just on-site (W. C. B. related) worker safety must be considered. Nor should one of these be traded off against the other - both must be accommodated.

4-K The cost effective standards and implementation processes should recognize the economic viability and international competitiveness of all our industry in present and the future.

M Should include "all forest-dependent uses" - not just timber.

5-K There should be an "all-encompassing" code containing principles.

M As is.

6-K Provincial, regional and local ecological requirements must be recognized in the development of management practices and processes.

M Should read "provincial and regional requirements and ecological requirements". These are separate ideas.

7-K Optional standards for good forest stewardship will only evolve by developing systems which provide incentives and compliance to standards. (Some members would like to see a separate principle dealing with the notion of penalties.)

M Delete the word "only". The word "encourage" should be balanced with discourage or "penalty" with reward.

8-K As is.

M Change the second "can" to will.

9-K As is.

M As is.

10 & 11-K (combined) The code should be based on appropriate, existing policies, practices and experience acquired over time, recognizing that practices are evolutionary, so there should be a process of review in response to science and changing public values.

10-M Change "based on" to consider.

11-K (see 10-K)

M As is.

12 & 14-K (combined) The code should be developed and implemented in an open, verifiable and accountable manner.

12-M As is.

13-K There must be a systematic process for public involvement in the development, review and implementation of the code.

M As is.

14-K (see 12-K)

M As is.

15-K For those to whom the code applies, there should be an understanding and appreciation of that code and of the ethics involved.

M Add "trained,... in minimizing impacts on forests".

Additions:

K - N/A

M - The value of public advice.

- The need for accountability in the government (bureaucracy) and among users.
- The importance of public access to information.

Management Instruments (comments)

K - Co-ordination is not emphasized, especially as between various acts and agencies.

- More acts need to be included in the examples (e.g. Water Act, Fisheries Act, Mining Act, Petroleum Act).
- Other examples of Prescriptions and Guidelines need to be included.
- Some of the instruments not listed may have a significant impact on the code.
- Some acts have a greater weight in law than others.

M - N/A

Option Package Insert

Kupfer group criteria for options 6.2.1 through 6.3

- require a range of penalties
- rules shouldn't be subject to political interference
- accountability must be related to power - new power, new accountability
- penalties should be related to scale of effects
- penalties must be clear and an appeal process included
- accountability should be extended to include all interests

APPENDIX 1

WORKSHOP SUMMARY - CRANBROOK - MAY 2-3, 1992			
3. FORMAT OF THE CODE			
3.1 Structural Elements	3.2 Functional Elements	3.2.2 Activity vs. Objectives Based	3.2.3 Results vs Process
Option 1A: Prescriptive Legislation **Option 1B: Enabling Legislation** Option 1C: Volunteer Compliance Alternative Statement of Preferred Option Group 2: plus a dispute resolution mechanism that provides recourse for the individual	**Option 2A: Single Code and IRM** Option 2B: IRM and Multiple Codes Option 2C: Single Code Emphasizing Timber Mgt. and Protection Alternative Statement of Preferred Option Group 1: a single code with many chapters	Option 3A: Activity based Code Option 3B: Objectives based Code Alternative Statement of Preferred Option Group 1: preferred Alternative statement. Objectives will already be clear; rules and regulations will be activity based. Group 2: preferred 3B.	Option 4A: Results oriented Code Option 4B: Process oriented Code Alternative Statement of Preferred Option Group 1: preferred alternative; results oriented with a credible process Group 2: preferred 4A
Reasons: Group 1: •flexible, adaptive and can include regional variations •Regulations would provide strength.	**Reasons:** •easier to administer Group 1: •comprehensive of all users •could be developed in stages	**Reasons:** Group 1: Activities are easier to focus on. Group 2: Would provide linkage to land use decisions. That is, resource management priorities	**Reasons:** Group 1: •either approach alone create problems •define the results and allow practitioners to get you there.

WORKSHOP SUMMARY - CRANBROOK - MAY 2-3, 1992		
4. APPLICABLE LANDS		
4.1 Public Land	4.2 Private Land	4.3 Conversion to other Uses
Differentiate between roles of: A. Land Use Planning B. Forest Practices Code Group 1: land use plans describe that should happen; the cost what must happen. Group 2: •land use plans provide resource emphasis and objects for code. •a code may ease land use pressures, frustrations and conflict by making integrated resource management workable	**Option 5A: All private forest land** Option 5B: Managed private forest land Alternative Statement of Preferred Option Group 1: plus, over a given size or stand level or impact level; applied with common sense for some uses.	**Option 6A: Include conversion in code** Option 6B: Apply only to forest management activities Alternative Statement of Preferred Option Group 1: plus, certain exemptions and reasonableness; determined based on E.I.A.s
Reasons:	**Reasons:** •There is a public right to influence use on private land where that use may negatively impact land use objectives.	**Reasons:** •The c ode should apply to all activities that have the ability to affect forest land.

WORKSHOP SUMMARY - CRANBROOK - MAY 2-3, 1992			
5. ADMINISTRATION			
5.1 Functions of Administration	Role of Audits	5.2 Administrative organizations	6.1 Incentives
Option 7A: MOF does the monitoring **Option 7B: Internal monitoring and external audit** Alternative Statement of Preferred Option Group 1: •If there is a change in administrative control then there must be a review •would like the possibility of a variety of administrative strucures	Option 8A: Current audit arrangements Option 8B: New audit branch Option 8C: Independent auditors Alternative Statement of Preferred Option Group 1: preferred 8C Group 2: •preferred alternative statement •create government group at regional level or higher separate from local influence or 8C. •in both cases auditors must be familiar with local circumstances	Option 9A: Status quo Option 9B: New public organizations Option 9C: Community forest resource boards Option 9D: Forest Practices Board Alternative Statement of Preferred Option Group 1: Preferred alternative •use existing structures in an independent body •emphasis on response to and communication with the public	Option 10A: Marketing seal Option 10B: Increased flexibility and efficiencies Option 10C: Increased security of tenure Option 10D: Liability insurance Option 10E: Stewardship performance bonds **Alternative Statement of Preferred Option** •both groups consider all options Group 1: Considerable debate on 10C and what constitutes security Group 2: •10D and E are not incentives •Funding liability insurance could be shared response

Reasons: Group 2: It is a government function (line again) to monitor forest practices.	**Reasons:** Group 1: separate from government to provide public credibility	**Reasons:** •more credibility than using the M.O.F. alone. Group 2: •9C should be reflected in planning, not day-to-day administration of the code.	**Reasons:**

WORKSHOP SUMMARY - CRANBROOK - MAY 2-3, 1992			
6.2 PENALTIES			
6.2.1 Removal of Suspension of Licences	6.2.2 Fines	6.2.3 Imprisonment	6.3 Enforcement Climate
Option 11A: Automatic suspension or cancellation Option 11B: Technical suspension of licence Alternative Statement of Preferred Option Group 1: preferred Alternative Group 2: preferred 11A and B; with consideration for the societal impacts of the decision	Option 12A: Administrative fines Option 12B: Court fines Alternative Statement of Preferred Option Group 1: preferred Alternative Group 2: preferred 12A and B; PRINCIPLE - fines should exceed any benefit from the offence.	Option 13A: Imprisonment Option 13B: Status quo Alternative Statement of Preferred Option Group 1: preferred alternative Group 2: preferred 13B.	Option 14A: Enforcement is automatically applied Option 14B: Independent body Alternative Statement of Preferred Option Group 1: preferred alternative Group 2: preferred 14A; for some offences; line agencies must develop the capability to deliver on enforcement

Reasons:	Reasons:	Reasons:	Reasons:
Group 1: •Require a range of penalties •Rules should not be subject to political interference •Accountability must be related to power - new power, new accountability •Penalties should be related to scale e of effects •Penalties must be clear and an appeal process included •Accountability should be extended to include all interests			

WORKSHOP SUMMARY - CRANBROOK - MAY 2-3, 1992			
7. TRAINING AND EDUCATION		8. PUBLIC INVOLVEMENT	
7.1 User Certification	7.2 Public Information	8.1 Public Audits	8.2 Public Empowerment
Option 15A: Mandatory certification Option 15B: Voluntary certification Alternative Statement of Preferred Option Group 1: preferred alternative; range necessary; encourage 15B through incentives.	**Option 16A: Comprehensive code document** **Option 16B: Explanatory publication** Alternative Statement of Preferred Option	**Option 17A: Annual report** **Option 17B: Local public release of audits** **Option 17C: Detailed and general reports** Alternative Statement of Preferred Option	Option 18A: Appointed advisory boards Option 18B: Elected management boards Option 18C: Use existing organizations Alternative Statement of Preferred Option Group 1: preferred 18C;combine top down and bottom up; include workers; need for

Group 2: preferred 15A; for some field positions in some circumstances (e.g. community watershed)			broader impacts to be considered in local decision-making Group 2: no consensus, disagreed on advisory status vs. legislated mandate; must include public, stakeholders and agencies
Reasons:	**Reasons:**	**Reasons:**	**Reasons:**

WORKSHOP SUMMARY - CRANBROOK - MAY 2-3, 1992			
9. DEVELOPMENT PROCESS			
8.3 Public Appeal	9.1 Timing	9.2 Public Involvement	9.3 A Living Code
Option 19A: Administrative appeal Option 19B: Forced mediation Option 19C: Private judgement services Option 19D: Court appeal Option 19E: Ministerial Review Panel Alternative Statement of Preferred Option Group 1: preferred alternative •must be timely •conflict resolution option to every level •need a hierarchy of appeal	**Option 20A: Priority development** Option 20B: Non-priority development Alternative Statement of Preferred Option Group 1: •need flexible goals •Spring 1993 is somewhat arbitrary, may need more time. Group 2: •with consideration given to evaluating existing standards, etc.	Option 21A: Stakeholder representation Option 21B: Broad public discussions Alternative Statement of Preferred Option Group 1: preferred alternative •both are needed depending on the issue. •avoid adversarial approach •clearly define the issues. Group 2: preferred option 21A. •Presume "stakeholder" includes public representatives. •this group would then design strategy to inform broader public.	**Option 22A: a learning organization** **Option 22B: Periodic review** Alternative Statement of Preferred Option Group 1: •retain flexibility •document success and failures

Group 2: Preferred options 19A, B, C, D and E. •at the discretion of the complainants they may choose either 19A or 19B initially •then either 19C, D or E if issue is still unresolved.			
Reasons:	**Reasons:**	**Reasons:**	**Reasons:**

APPENDIX 2

LIST OF PARTICIPANTS - CRANBROOK MAY 1992

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B. C. Forest Resources Commission

A Forest Practices Code

Summary of Public Workshop

Kelowna, May 1-3, 1992

Prepared by:
Gordon Erlandson
Chief Facilitator

for:
Salasan and Praxis

1.0 Introduction

This workshop is part of a series of workshops organized for the B. C. Forest Resources Commission to discuss the implications and make recommendations for implementing a Forest Practices Code for British Columbia.

Thirty-five participants attended the workshop. The following commissioners were present: Dr. R. Kennedy (Vice-Chairman), William (Bill) Mulholland and Cyril Shelford.

The report discusses the various options and recommendations selected by the participants as well as some of the rationale for selecting the options.

A summary of the options and recommendations can be found in a matrix format in Appendix 1.

SUMMARY OF OBJECTIVES, CONSTRAINTS AND PRINCIPLES

2.1 Objectives

The objective statements were considered very broad, and some of the terms and the wording were confusing. Definitions should be provided in a glossary for the following terms: stakeholder, public, user, user group, multiple resource use, integrated resource management, complementary resource management, enhanced stewardship, responsibility, accountability, prescription, cost effective.

2.1.1
- Set objectives for enhancement and maintenance.
- Economic criteria should be tied in.

2.1.2
- Standards cannot be universally applied, but principles can be. Standards must reflect local conditions.
- Fairness in application is a priority.

2.1.3
- The type of use and nature of responsibility should be specified. The statement by itself is so general as to be impractical.
- Decision-makers are also accountable.

2.1.4
- Code should not be a decision-making process.
- Change "provide" to "support".

2.1.5
- "Assure the public the forests...sensitive and sustainable manner."

2.1.6 • "Contribute to the..."

2.1.7 • Cost-effective was not understood by participants. Cost of what? To whom?

2.1.8 • Add an additional objective or goal statement that provides the purpose of a Code.

2.2 Some Constraints

2.2.1 Objections raised to the statement that the forestry sector is resistant to change, without recognition for increased costs fixed by the industry.

2.2.2 "Funding for resources management has been inconsistent."

2.2.3 Building a Code that is publicly understandable.

2.2.4 Funding for Code development and application. Who pays for development; application, auditing?

2.3 Principles

2.3.1 • General agreement, but unsure of meaning of integrated resource management as it applies to a Code.

2.3.2 • Agree - "The Code shall..."

2.3.3 • Opposition to principle as written if it infers that harvesting practices are dictated first and foremost by human safety. E.g., machine falling everywhere.

• Code should not put humans at risk.

2.3.4 • Change "timber" to "forest-based" industries and "maintain" to "supported".

2.3.5 • Agree.

2.3.6 • Delete "Provincial, regional and."

2.3.7 • Delete "only".

• Reward superior practices.

2.3.8 • Change to "Accountability to the public can..."

2.3.9 • Agree.

2.3.10 • Code should "draw from existing policies."
- Consider combining with 2.3.11.

2.3.11 • "New science, equipment and..."

2.3.12 • Consider combining 2.3.8, 2.3.12, 2.3.13 and 2.3.14.

2.3.13 • There should be active participation in adopting the Code.

2.3.14 • Does not seem relevant as a principle - delete.

2.3.15 • "Properly trained and educated."
- Could combine this with 2.3.3 on safety.

2.3.16 • The Code should be dynamic and recognize that practices are evolutionary.

2.3.17 • Add a reference or linkage between Code of Practice and Codes of Ethics for managers.

GENERAL OBSERVATIONS FROM THE PLENARY

1. The Code Options Paper seems to mix forest practices and land use decision-making often. This makes the intent and specifics difficult to follow.

2. Appears to be disagreement as to what specifically is in a Code. What does a Code do? The options paper provides a framework, but what is the nature of the substance? Some people feel that most, if not all, standards currently exist in various forms. Others believe that a set of standards has yet to be developed (or at least that there is a need for major redevelopment).

   This may only be resolved through actual Code development, but disagreement over the facts appears likely. To engage in development of a Code given the differences of opinion as to content and the subjective nature of environmental management, will require a clearer sense of purpose and functions.

   Some written "samples" of the intended content of a Code would help people understand better and be able to provide improved comments.

3. What are the best chances for implementing a Code?

e.g., - broad user support
- coordinated effort among a wide variety of committed interests.

A Code put in place by foresters for forestry purposes will not treat the problem of public perception.

"OTHER ISSUES AND CONCERNS FOR CONSIDERATION BY THE COMMISSION"

1. Structure of Code should be discussed with stakeholders.

2. Need emphasis on education and on use of progressive equipment.

3. Need mechanism to deal with professional difference of opinion (e. g. over audit results).

4. Whether or not to separate the Small Business Program from the Forest Service.

5. Whistle-blower protection.

6. Representation here (in process) by active loggers.

7. Application of Code to importation and use of seed.

8. The administration side of the equation has to be carefully thought through re: ability to integrate and deliver a comprehensive Code on a long-term basis.

9. Who physically develops a Code? One suggestion is for practical operations people to do it.

10. Make a clearer distinction between a Code and land use decision-making.

11. Assess the practicality and cost of implementing a "counsel of perfection."

12. How will a Code become "accepted" by licensed users and publics.

13. Certain strong/extreme environmental viewpoints have chosen not to attend. This could be an issue later. Commission needs to pursue all viewpoints actively so that no one can claim exclusion later.

14. Who pays for unfounded appeals?

15. FRC to be main channel for appeals.

16. Who Pays!

17. Is a Code specific to a legal entity like a corporation or licensee, or does it also apply to Professionals? How does a Code relate to Professional responsibilities?

18. Implementation should engage citizens in a voluntary fashion.

2. THE CLIMATE FOR CHANGE

GROUP ONE

2.1 **Objectives**

2.1.1 Enhance and/or maintain

What do biological and physiological capacity mean?

- broader land uses should be tied in
- add to end [according to the land use strategy]

2.1.2 "To give fair and equitable consideration for all forest users through universally applied principles."

- add- integration of stakeholders - even ground

2.1.3 Responsibility for what? Who has authority?

- clarify responsibilities (e.g. responsible for impacts?)
- proactive approach
- add [with appropriate incentives and penalties]
- through their licenses

2.1.5 To provide assurance locally and internationally that...

2.1.7
- What is cost-effective? to whom? participants?
- What is the measuring stick? Is it realistic?
- Two separate objectives?

2.3 **Principles**

2.3.1 Uses need to be prioritized

- IRM - principles

2.3.2 Biodiversity - define?

2.3.7 Reward superior practices

2.3.10 Code should "draw from existing policies..."

2.3.11 Science and equipment

2.3.16 Lack of reference to professional responsibilities

GROUP TWO

2.1 Objectives

2.1.1 Necessity to address social and economic impacts and implications to forest practices decisions in addition to basing a Code on the ecological capacity.

- Some confusion exists about the meaning of "enhanced stewardship" as it pertains to forest practices.

2.1.2 Standards should be universally applied (in an equitable fashion) 'fairness.'

- Code should be results oriented, rather than process oriented.

2.1.3 Users should be responsible and accountable, as should decision-makers.

2.1.4 Decision-making process should be open, timely and accessible to the public. Participation in the process of decision-making means responsibility for progress in the process and for shared accountability for decisions.

2.1.5 "To provide assurance to the public" (rather than individuals).

2.2 Some Constraints

2.2.1 Objections raised to the statement that the forestry sector is resistant to change, without recognition for increased costs fixed by the industry.

2.2.2 "Funding for resources management has been inconsistent."

2.2.3 Building a Code that is publicly understandable.

2.2.4 Funding for Code development and application. Who pays for development; application, auditing?

2.3 Principles

2.3.1 Agreement with principles is conditional on the land use classification and ownership to which the Code applies. Distinction between the basis for Code development and its application.

2.3.2 The word "shall" should be considered as a substitute for "should" in some principles.

2.3.3 Safety of humans should be of highest priority in timber harvesting practices.

2.3.5 and 2.3.12 noted as priorities

- all encompassing Code
- open verifiable and accountable implementation.

2.3.10 Tie #10 & #11 together as a single principle to "recognize" both experience and practice; some current policies and practices may not be supportable.

2.3.12 Tie 12, 13 & 14 into a single statement.

GROUP THREE

2.1 **Objectives**

2.1.1 Focus also on improvement by setting objectives for enhancement, with minimum standards

- maintain and improve
- define forest in this context - Code has multiple definitions of forest
- to what land base do objectives apply?

2.1.2 "Standards" cannot be "universally" applied in B. C. because of diversity of conditions - instead: "Standards that are universally applied."

2.1.3 Code must have a glossary which defines terms, including "stakeholder, public, user, user group, multiple resource use, integrated resource management, complementary resource management, enhanced stewardship, responsibility, accountability, prescription, cost effective."

2.1.4. Code should not be a decision-making process.

- change "provide" to "support"

2.1.5 Impossible to provide assurance to all.

- remove bracket and reads "sensitive and sustainable"
- delete "provide"' change to "Assure concerned individuals...."

2.1.6 Change to "contribute to increased...."

2.1.7 Cost effective may not lead to enhanced stewardship.

- some participants believe that "cost-effective" is so problematic in both definition and application, that this objective should be deleted.

2.1.8 Add a first objective or goal "to sustain B. C.'s forests and jobs by ensuring...." - similar to opening statements in the workshops.

2.3 **Principles**

2.3.1 Need definitions: integrated, complementary, multiple resource use.

2.3.2 Agree.

2.3.3 Some participants opposed to this principle.

- combine with #15.

2.3.4 Change: "timber" to "forest-based" industries; "maintain" to "supported".

2.3.6 Delete "provincial, regional and".

2.3.7 Delete "only".

2.3.8 Change to "Accountability to the public can....?

APPENDIX 1

WORKSHOP SUMMARY - KELOWNA - MAY 2-3, 1992			
3. FORMAT OF THE CODE			
3.1 Structural Elements	3.2 Functional Elements	3.2.2 Activity vs. Objectives Based	3.2.3 Results vs Process
Option 1A: Prescriptive Legislation **Option 1B: Enabling Legislation** Option 1C: Volunteer Compliance Alternative Statement of Preferred Option	**Option 2A: Single Code and IRM** Option 2B: IRM and Multiple Codes Option 2C: Single Code Emphasizing Timber Mgt. and Protection Alternative Statement of Preferred Option • A single code with IRM application is preferred, but with additional language to specify user responsibilities.	Option 3A: Activity based Code **Option 3B: Objectives based Code** Alternative Statement of Preferred Option	**Option 4A: Results oriented Code** Option 4B: Process oriented Code Alternative Statement of Preferred Option
Reasons: • Flexibility; prescriptive legislation is too restrictive. • Consensus that the legislative base should be broad, simple, and allow for responsiveness to local conditions. • While volunteer compliance was thought unrealistic, some level of volunteerism or "buy-in" is desirable.	**Reasons:** • Although the Code would encompass a range of practices, initial emphasis should be on practices related tom timber harvesting.	**Reasons:** • Encourage innovation and competitiveness. • Manuals already exist. • Ease of evaluating results.	**Reasons:** • Avoid subjectivity through measurable targets that well-defined • Must consider delayed impacts and cumulative impacts. • Allows for original intent of management regime to be maintained

WORKSHOP SUMMARY - KELOWNA - MAY 2-3, 1992		
4. APPLICABLE LANDS		
4.1 Public Land	4.2 Private Land	4.3 Conversion to other Uses
Differentiate between roles of: A. Land Use Planning B. Forest Practices Code • Although this distinction was not addressed directly in the workshop, a Code was thought to refer to implementation of activities only.	Option 5A: All private forest land **Option 5B: Managed private forest land** Alternative Statement of Preferred Option • While some form of Code application was thought desirable for managed private forest land, agreement on how this could be done was not reached. Several people in fact, preferred 5A.	**Option 6A: Include conversion in code** Option 6B: Apply only to forest management activities **Alternative Statement of Preferred Option** • One of three working groups preferred 6A, the other groups rejected this as a Code consideration.
Reasons:	**Reasons:** • Applies to all Crown Lands. • Apply to private managed forest land is a small percentage of B.C., and that an alternative approach would be to entrench standards for environmental protection within existing legislation (e.g., Wildlife Act, Water Act). • Complex and controversial issue which requires more consideration than the paper suggests.	**Reasons:** • Agreement that conversion referred to a land use decision to convert land from one use to another. On t his basis, most people thought conversion was not part of a Code. Others interpreted this to mean that the actual practices applied to make a conversion should be governed by a Code.

WORKSHOP SUMMARY - KELOWNA - MAY 2-3, 1992

5. ADMINISTRATION

5.1 Functions of Administration	Role of Audits	5.2 Administrative organizations	6.1 Incentives
Option 7A: MOF does the monitoring Option 7B: Internal monitoring and external audit **Alternative Statement of Preferred Option** • Ministries and licensees continue with their own supervision and monitoring. • External audits necessary, although internal audits might also be done.	Option 8A: Current audit arrangements **Option 8B: New audit branch** **Option 8C: Independent auditors** Alternative Statement of Preferred Option • Some variation of independent auditing and mechanism to manage the audit f unction. • Some people thought that independent audits should only apply to the SBFEP.	**Option 9A: Status quo** Option 9B: New public organizations Option 9C: Community forest resource boards Option 9D: Forest Practices Board Alternative Statement of Preferred Option • agreement that current organizations should remain, and some form of public advisory function is desirable.	Option 10A: Marketing seal Option 10B: Increased flexibility and efficiencies Option 10C: Increased security of tenure Option 10D: Liability insurance Option 10E: Stewardship performance bonds Alternative Statement of Preferred Option • No consensus on the typed of incentives needed, although incentives are desirable.
Reasons: • Ministries and licensees monitor and audit for their own purposes (e.g., regulation, protect interests). • Lack of trust/credibility with BCFS, t herefore an external audit is needed, either regularly or periodically • The BCFS should be audited on lands managed for the Small Business Forest Enterprise program (SBFEP).	**Reasons:** •The need for an audit branch was ackowledged, with suggestions that it be: 1. new BCFS branch, and 2. independent and report directly to legislature. •Credibility is the main issue. •Agreement that the BCFS should not audit itself (SBFEP). •If independent, a <u>small</u> management branch should be retained in-house. •Audit quality and consistency should be top priorities. •Audit reports should be publicly available.	**Reasons:** •Status quo acceptable if: - IRM Branch acts as a watchdog in consultation with the public - ministries have strong commitment •Any resource boards should be <u>advisory</u> rather than decision-making. •One working group ackowledged the need for public consultation, but thought this could be done through current mechanisms rather than "advisory boards".	**Reasons:** •Incentives should apply to superior performers. •10A and 10B not seen as incentives (already happen), but emphasis could be placed on auditing poor performers more intensively. •Incentives should encourage good practice, but not be in the form of preferential administrative treatment.

WORKSHOP SUMMARY - - MAY 2-3, 1992

6.2 PENALTIES

6.2.1 Removal of Suspension of Licences	6.2.2 Fines	6.2.3 Imprisonment	6.3 Enforcement Climate
Option 11A: Automatic suspension or cancellation Option 11B: Technical suspension of licence Alternative Statement of Preferred Option	Option 12A: Administrative fines Option 12B: Court fines Alternative Statement of Preferred Option	Option 13A: Imprisonment Option 13B: Status quo Alternative Statement of Preferred Option	Option 14A: Enforcement is automatically applied Option 14B: Independent body Alternative Statement of Preferred Option

All working groups had difficulty with Section 6.2. It appeared premature to many people to talk about penalties when the content of a Code had not been discussed (i.e., no idea of the nature of an infraction). Penalties seemed to be pushing the "stick" rather than the "carrot" which people preferred.

The existing penalty structure was seen as likely sufficient, with a few changes. Greater concern, however, was expressed over the current lack of enforcement, political interference with enforcement practices, and the significant impacts on communities from enforcement of severe penalties which cause economic hardship.

The plenary session indicated general support for the statement of "Principles for Penalties and Incentives" as presented by Group 3. These are:

Principles for Penalties and Incentives

1.Code must have penalties and incentives that are enforceable and enforced.
2.Penalties and incentives must be commensurate with the crime and applied equally to all.
3.No profit in the crime ($ penalty should deter crime).
4.Both violations and performance must have measurable and objective criteria.
5.Incentive must be meaningful to encourage investment in the enhanced stewardship.
6.Incentives should be linked with the increased productivity of the forest land base.
7.Incentives and penalties should apply to all forest users.
8.Public recognition (and scorn) is an appropriate mechanism to promote enhanced stewardship.

WORKSHOP SUMMARY - KELOWNA - MAY 2-3, 1992			
7. TRAINING AND EDUCATION		8. PUBLIC INVOLVEMENT	
7.1 User Certification	7.2 Public Information	8.1 Public Audits	8.2 Public Empowerment
Option 15A: Mandatory certification Option 15B: Voluntary certification Alternative Statement of Preferred Option •Two working groups favoured voluntary certification, while the third favoured mandatory. •No consensus.	**Option 16A: Comprehensive code document** **Option 16B: Explanatory publication** Alternative Statement of Preferred Option •Agreed that both a comprehensive Code and a summary were needed.	Option 17A: Annual report Option 17B: Local public release of audits Option 17C: Detailed and general reports **Alternative Statement of Preferred Option** •A combination of all three options is desirable.	**Option 18A: Appointed advisory boards** Option 18B: Elected management boards Option 18C: Use existing organizations Alternative Statement of Preferred Option •Two groups preferred an appointed advisory board at the regional or local level. •One group did not believe that public empowerment was an objective in a Code and deleted Section 8.2 as pertaining more to land use planning.
Reasons: •Voluntary certification was seen as the most practical, making use of current industrial programs and creating training requirements for licensed users. •However, it was argued that the only way to ensure familiarity with the Code (and therefore its application), was to require certification of workers/users. Everyone working within the parameters of the Code would require exposure.	**Reasons:** •Comprehensive code available at cost and in central locations (e.g., libraries). •Summary explanation available free of charge to any interested party.	**Reasons:** •Need all to enhance trust and credibility. •Precise combination was not specified. •Concerns were raised about the cost to administer such a reporting schedule.	**Reasons:** •Precise role of an Advisory Board was not pursued (i.e., Advise on what? and to whom?). •Some form of public watchdog seemed the best description of intent.

WORKSHOP SUMMARY - KELOWNA - MAY 2-3, 1992			
9. DEVELOPMENT PROCESS			
8.3 Public Appeal	9.1 Timing	9.2 Public Involvement	9.3 A Living Code
Option 19A: Administrative appeal Option 19B: Forced mediation Option 19C: Private judgement services Option 19D: Court appeal Option 19E: Ministerial Review Panel **Alternative Statement of Preferred Option** •None of the options seemed reasonable; not clear what would be appealed and by whom.	**Option 20A: Priority development** Option 20B: Non-priority development Alternative Statement of Preferred Option	**Option 21A: Stakeholder representation** **Option 21B: Broad public discussions** Alternative Statement of Preferred Option •Agreement that broad public discussion and review was needed for Code development.	**Option 22A: a learning organization** **Option 22B: Periodic review** Alternative Statement of Preferred Option •Agreed with a "living Code", but disagreement as to approach seemed to stem from confusion over the meaning of the options.
Reasons: •Existing appeal mechanisms should be used where possible. •Appeals should not become the decision-making process. •Concern for overuse and abuse of appeal mechanisms. •Some form of administrative appeal was discussed, as was binding decision by an appeal pane.	**Reasons:** •Action is needed as soon as possible, but not at the expense of a workable product. •Spring '93 is a reasonable target for at least a framework (e.g., legislative base).	**Reasons:** •However, also agreed that stakeholder participation was essential to develop a Code in the first place.	**Reasons:** •The options do not appear as being mutually exclusive. •It seems reasonable that organizations respond to changing circumstances and new information, but also that periodic review would be a necessity.

APPENDIX 2

LIST OF PARTICIPANTS

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Bob Kennedy	Forest Resources Commission
Cyril Shelford	Forest Resources Commission

B. C. Forest Resources Commission

A Forest Practices Code

Summary of Public Workshop

108 Mile House, May 8-10, 1992

Prepared by:
Gayle Nelson
Chief Facilitator

for:
Salasan and Praxis

1.0 Introduction

This workshop is part of a series of workshops organized for the B. C. Forest Resources Commission to discuss the implications and make recommendations for implementing a Forest Practices Code for British Columbia.

Twenty-five participants attended the workshop. The following commissioners were present: Dr. R. Kennedy, David Haywood-Farmer and Garry Sharpe

The report discusses the various options and recommendations selected by the participants as well as some of the rationale for selecting the options.

A summary of the options and recommendations can be found in a matrix format in Appendix 1.

Group 1: Gayle Nelson – Cathy Moriata
Group 2: Dianna Colnett – Tyler Elm
Plenary Recorder – Tim Thurston

General Themes and Areas of Agreement

- Priority need for development of Forest Practices Code
- Need to minimize bureaucracy
- Need for clear definition of terms and concepts

Unresolved Issues

- Mesh between land use and forest management activities at a local level
- Process for blending public involvement in land use and forest management
- Degree of public involvement in forest management issues
- Who should pay for external audits

Outstanding Issues to be Considered in the Development of a Forest Practices Code

• Critical for government to be charged with responsibility to maintain and rehabilitate land base where necessary. Process should be to rehabilitate damaged areas and concurrently seek payment for rehabilitation from the responsible party. Costs of rehabilitation should not come from Ministry budgets.

• Need commitment from government to support resource managers in monitoring and enforcing Acts and Regulations

• Need to recognize good practices on the part of non-timber users

• Legislation should be straightforward, and convey a clear idea of the goals of the code.

• Code should be top-down and bottom-up

• Education is a critical issue, it is important that all values are taught in a balanced fashion

• Code should incorporate specific management concepts:
- a diversity of potential management prescriptions
- landscape-level and site-specific management variations
- adaptive management principles

Objectives and Principles Presented

It was felt that the Code should contribute to the development of a land ethic

Some people felt the use of the term "public" was creating a false distinction and an impression that the only people who know anything about the forest are government employed resource managers or people working in the forest industry.

Objectives

Need to have a clear Mission Statement combining Objectives # 1 & 5:

1. To establish the standards necessary for enhanced stewardship that will maintain the biological and physiological (suggestion to include *productive*) capacity of the forest.

5. To provide assurance to concerned individuals, both local and international, that the forests of B. C. are being managed in a technologically correct and ecologically sensitive (sustainable) manner.

Suggested wording changes for Objective #5:
(change *To provide* to read: *To be able to provide*) **or**
(change *To provide assurance to* to read: *To ensure*)

Clarify wording and intent: words noted in ***bold italics*** were found to be particularly confusing

- **Objective # 2:**
To give fair and equitable consideration to ***all forest users*** through the application of ***universally-applied standards***.

- **Objective # 3:**
To create a flexible management system that puts responsibility on ***the user***.

Principles

Principles should be reviewed for duplication and confusing language

Principles should reinforce the range of values and their importance

Principles relating to specific concepts should be grouped together to allow comparison and comprehensive understanding

Principles # 3 & 4 include language which reflects a timber bias or emphasis

Principle # 4 implies an reliance on political opinion, and makes allowance for administrative sympathy. A number of people felt it should be deleted from the code.

Principle # 5 is in fact one of the options and should be deleted as a principle

Principle # 10 implies that all existing policies and practices are useful and valid, this needs to be clarified re: **learning from** and **drawing on** existing policies and practices, this wording should be emphasized.

Principles # 10 & 11 could be combined

Principles # 1, 2, 10, and 12, (with amendments where called for) should be leading principles, as they express the main ideas and are consistent with the objectives

Options and Summary of Participant Responses

3. FORMAT OF THE CODE

3.1 Structural Elements

Both groups: General agreement on Option 1B, Enabling Legislation

Reasons:
- Flexibility to allow for evolution of code.
- Best option to accommodate the immediate need for legislation and provide direction while details of code are being formulated in response to new government initiatives and research.
- Allows development of pro-active regulations

Recommendations:
- Issues of critical importance should be entrenched through prescriptive legislation
- Legislation needs maximum possible degree of specificity and definition, also needs clear, simple statement of goals

Problems with option decision:
- Lack of knowledge about the legal details attached to issues under discussion

3.2 Functional Elements

Group 1:
- Preferred Option 2A, single code with integrated resource management as ideal, initiated through 2C, single code emphasizing timber management and protection of other values

Group 2:
- Preferred a progression starting with option 2C and moving through 2B and into 2A as the long term goal

Reasons:
- While an IRM single code is the goal, orienting the code toward the highest impact area of timber management is a practical place to begin
- Time constraints on code development can also be managed effectively with a progressive code approach
- Code should cover all ministries, therefore only the single code with IRM is practical in the long run

Recommendations:
• Code should cover all ministries that have mandates involving the forested land base
• There should be inter ministry coordination through the code
• Intermediate step of multiple codes would allow clarification of users, their needs and expectations, promotes integrated thinking

Problems with option decision:
• Some confusion over wording

3.2.2 Activity Vs. Objectives Based & 3.2.3 Results Vs. Process

Group 1: 3B Objectives Based Code

Reasons:
• Reflects need to orient planning and management work toward larger goals
• A more focused approach
• Allows better practices, more innovation and clarity in planning

Group 2: 3A combined with 4A

Reasons:
• Defined range of activities to be equivalent to what group 1 felt were objectives
• Concluded that hierarchy of possible actions would be objectives/activity, results, process
• Activities perceived to be broken down by objectives, with scale as a critical factor

Recommendations:
• Should keep overall objectives and principles in mind when designing code content

Problems with option decision:
• 3.2.3 Results vs. Process was perceived to be a duplication of 3.2.2
• Lack of concise definitions as to option intent

4. APPLICABLE LAND

4.1 Public Land

Both groups:
• Felt this section was somewhat extraneous. Group 1 define land use as the how and management as the what in dealing with forested land base. Group 2 passed on defining difference.

4.2 Private Land

Both groups:
• Wide spread of opinion

Group 1:
• **Alternative 1.** criteria for assessing 'downstream impacts' of forest activities on other users, and deciding on some control for private land activity.
• **Alternative 2.** timber harvesting on plots over a certain size would make private land subject to the code
• **5A** All private forest land, and 5C no private forest land received minor support
• **5B** Managed private forests land was the most heavily agreed to option

Group 2:
• Split between **5A and 5B**
• **Alternatives:** volunteer compliance on private land, social pressure for voluntary compliance

Reasons:
• **5A** is too dictatorial and infringes on personal rights
• **5B** doesn't cover all possible problem scenarios, such as where private land holds significant proportions of regional representation of forest

Recommendations:
• Addition to all options: as crown land is turned into private land, it should automatically fall under the code
• Basic principles should apply to all land to control speculation and abuse of forest resource on private land
• There should be tax incentives not to log

Problems with option decision:
• Lack of definitions and background information to allow participants to make comprehensive informed decision
• Question of legality of 5A

4.3 Conversion to Other Uses

Group 1:
• No conclusions, this option is actually a land use question, tendency toward 6B Apply only to forest management activities

Group 2:
• 6B Apply only to forest management activities

Reasons:
• Other regulatory systems should cover conversion issues

Recommendations: N/A

Problems with option decision:
• It is not made clear how this specifically relates to the code
• Inadequate preliminary explanation and distinction between options

5. ADMINISTRATION

5.1 Functions of Administration & Role of Audit

Group 1:
• **Alternative:** Combination of MoF monitoring and independent auditors
Spread of opinion included both option 7A and 7B

Reasons:
• Sense that the status quo situation is working quite well, but that independent audits would be mandatory for public credibility

Group 2:
• 7B Internal monitoring and external audit by independent auditors or new audit branch

Reasons:
Monitoring is related to activities which are licensees responsibility, and auditing is related to results which should be accountable to independent body accountable to the larger public.

Recommendations:
• Auditors / Audit Board should report to body independent of resource ministries
• Before providing audit results to public, group with negative audit should be allowed to appeal before information is made public

Problems with option decision:
• Lack of clarity about hierarchy of monitoring / audits, who independent auditors would report to

5.2 Administrative Organizations

Group 1: Spread of opinion
- **Favoured Alternative:** Combination of new public organizations and Community Resource Boards
- **9A** - Considerable support for status quo with its current evolving new initiatives

Reasons:
- need for more incorporated ministry operations and increased public, local level input.
- sense that new resource initiatives coming on-line in conjunction with CORE will meet expectations of public, resource managers and industry

Group 2:
- 9D Forest Practices Board

Reasons: Small Forest Practices Board made up of experts in forest management issues would be viable if audited by independent auditors with reports made public locally. The Board would be 4 - 6 people, reporting to the Minister (therefore independent from the bureaucracy) and would be responsible for developing and implementing the Code.

Recommendations:
- Should not use Forest Resources Commission models for Forest Corporation and Ministry of Natural Resources. Concept needs more development to keep it in line with public expectation and economic reality
- Community Resource Boards should be appointed and advisory
- Creation of these options should not be done as an additional layer of bureaucracy, but as replacement of existing less effective structures

Problems with option decision:
- Insufficient explanation of how these structures would mesh or remain separate from land use bodies

6. INCENTIVES AND PENALTIES

6.1 Incentives

Group 1:
- **10A Marketing Seal**

Reasons:
- Seen to be an economic incentive that would convey status

Group 2:
- Spread of opinion between 10 A, B and C
- Combination may be most acceptable option

Reasons:
- 10C seen to infringe on public ownership of land
- 10B happens inevitably to some degree in current system
- 10E would impact small operators and does already exist

Recommendations:
- Marketing Seal needs to be strictly controlled to maintain association with high quality, environmentally sound product
- Need to develop procedure for dealing with people who do not meet seal standards and continue to market their lumber
- Need to make this issue relevant to non-timber users

Problems with option decision:
- Discussion of incentives alone is unrealistic
- Hard to see how this would apply to all users, needs a wider range of incentives

6.2. Penalties

Group 1:

6.2.1
Alternative: Combination of 11A and 11B

6.2.2
Alternative: Combination of 12A and 12B

6.2.3
Alternative: Combination of 13A and 13B

Reasons:
• Most of these options already exist and work fairly well, should be refined as code is developed

Recommendations:
• People making false statements and intentionally breaching law should be imprisoned

Group 2:

6.2.1, 6.2.2, 6.2.3

• Group believes in penalties, but details must be worked out with the details of the code

Problems with option decision:
• difficult to come to conclusions without more information about potential content of the code

6.3 Enforcement Climate

Both groups:
• agreement that public audits are key to improved enforcement

Group 1:
Alternative option: to maintain status quo re on-site assessment of infractions with repeat offenders receiving stricter penalties

Group 2:
14 A

Reasons:
• automatic enforcement tied to public release of information would be most effective penalty

Recommendations:
• Need more commitment by government to support resource managers to enforce the code
• Need for a defined, accountable process for administration of incentives and penalties

Problems with option decision: N/A

7. TRAINING AND EDUCATION

7.1 User Certification

Both groups:
• 15 B Voluntary certification

Reasons:
• cost, monitoring and enforcement of mandatory certification would not be feasible

Recommendations:
• should be combined with good general education for all users
• should occur as parallel process with development of single IRM code i.e. certification for timber harvesters should be priority
• silviculture certification process could be used as a model
• should be a trained user for every site or group of users, to explain and ensure good practices
• code should instill land ethic, therefore user certification should be oriented to that purpose
• this issue should be linked with need for ongoing education of all people in B. C. about forest ecology and forest values – should be a lifelong learning experience – could be tied to the Forestry Continuing Studies Network

Problems with option decision:
• need clarification about user groups, who they are, how they are monitored

7.2 Public Information

Both groups:
• **Alternative:** combination of 16A and 16B

Reasons:
• Need to provide different types of information to a number of different groups, but all information should be available

Recommendations:
• use of computer technology for cost effectiveness and to avert the need for all information to be duplicated in print
• Put in place a well-defined communications strategy

Problems with option decision: N/A

8. PUBLIC INVOLVEMENT

8.1 Public Audits

Both groups:
- **Alternative:** Combination of all three options 17 A, B & C

Reasons:
- All are needed, and should be available on demand

Recommendations:
- Before providing audit results to public, group with negative audit should be allowed to appeal before information is made public
- Annual report should not be Chief Forester's responsibility
- use of computer technology for cost effectiveness and to avert the need for all information to be duplicated in print

Problems with option decision: N/A

8.2 Public Empowerment

Group 1:
- Spread of opinion
- 18C Combination boards
- **Alternative:** Use of existing MoF processes e.g. LRUPs, with evolving initiatives and CORE's local processes

Group 2:
- No firm decision

Reasons:
- For any option there is a need for commitment and qualifications
- This issue is closely tied to land use issues and AAC decisions

Recommendations:
- Should be continuity with local governments, regional districts, and user groups
- District managers should be required to conduct a certain amount of public involvement

Problems with option decision:
- A lot of uncertainty about how this would actually work
- Needs more clarification, models and definition

8.3 Public Appeal

Group 1:
• No clear decision

Reasons:
• This process would be more appropriately tied into CORE's process

Group 2:
• **Alternative:** Combination of 19A and 19B

Reasons:
• Need defined and structured process with time frames attached
• More cost effective

Recommendations:
• Clarify process to allow easy access to people wishing to use the system

Problems with option decision:
• Unclear in preamble if this is related to land use or appealing the audit process
• Difficult to make decisions on these issues before code is developed
• Overlap with existing legislation causes confusion

9. DEVELOPMENT PROCESS

9.1 Timing

Both groups:
• 20A Priority development

Reasons:
• to deal with integration of needs for well managed forest values, harvesting and economic issues
• to provide some security to industry
• to meet public demand

Recommendations:
• legislation should be introduced, priority areas defined and work begun to produce a high quality code.

Problems with option decision: N/A

9.2 Public Involvement

Both groups:
Alternative: Combination of 21A and 21B

Reasons:
- stakeholder representation should be primary focus
- public workshops would allow reality check and broad feedback mechanism

Recommendations:
- stakeholder groups should act as a core group for process of code development
- all stakeholders must have the opportunity to be involved
- public should have opportunity to review proposed legislation

Problems with option decision:
- lack of information about how process would work in a short time frame

9.3 A Living Code

Both groups:
Alternative: Combination of 22A and 22B

Reasons:
- need to clarify and entrench the review process
- reflects philosophy of public involvement
- allows for change and satisfaction of all user group interests

Recommendations:
- Review process should be legislated
- Should be tied to review of ethics of professional organizations whose work is related to forest stewardship
- Adult educators should be involved in the establishment and processes of the learning organization component

Problems with option decision: N/A

APPENDIX 1

WORKSHOP SUMMARY - 108 MILE HOUSE - MAY 8-10, 1992			
3. FORMAT OF THE CODE			
3.1 Structural Elements	3.2 Functional Elements	3.2.2 Activity vs. Objectives Based	3.2.3 Results vs Process
Option 1A: Prescriptive Legislation **Option 1B: Enabling Legislation** Option 1C: Volunteer Compliance Alternative Statement of Preferred Option	Option 2A: Single Code and IRM Option 2B: IRM and Multiple Codes Option 2C: Single Code Emphasizing Timber Mgt. and Protection Alternative Statement of Preferred Option Group 1 preferred option 2A, initiated through 2C. Group 2 preferred a progression starting with option 2C and moving through 2 B and into 2A as the long term goal.	Option 3A: Activity based Code Option 3B: Objectives based Code Alternative Statement of Preferred Option	Option 4A: Results oriented Code Option 4B: Process oriented Code Alternative Statement of Preferred Option See 3.2.2
Reasons: •Flexibility to allow for evaluation of code. •Best option to accommodate the immediate need for legislation and provide direction while details of code are being formulated in response to new government initiatives and research. •Allows development of pro-active regulations	**Reasons:** While an IRM single code is the goal, orienting the code toward the highest impact area of timber management is a practical place to begin. •Time constraints on code development can also be managed effectively with a progressive code approach •Code should cover all ministries, therefore	**Reasons:** Group 1 = option 3B •Reflects need to orient planning and management work toward larger goals •A more focussed approach •Allows better practices, more innovation and clarity in planning. Group 2 = combined 3A and 4A	

Recommendations: •Issues of critical importance should be entrenched through prescriptive legislation •Legislation needs maximum possible degree of specificity and definition, also needs clear, simple statement of goals problems with option decision: •Lack of knowledge about the legal details attached to issues under discussion.	only the single code with IRM is practical in the long run **Recommendations;** •Code should cover all ministries that have mandates involving the forested land base •There should be interministry coordination through the code •Intermediate step of multiple codes would allow clarification of users, their need s and expectations, promotes integrated thinking •Problems with option decision: •Some confusion over wording.	•Defined range of activities to be equivalent to what group 1 felt were objectives •Concluded that hierarchy of possible actions would be process, objectives, activity, results •Activities perceived to be broken down by objectives, with scale as a critical factor. **Recommendations:** •Should keep overall objectives and principles in mind when designing code content problems with option decision: •3.2.3 Results vs Process was perceived to be a duplication of 3.2.2 •Lack of concise definitions as to option intent.	**Reasons:**

WORKSHOP SUMMARY - 108 MILE HOUSE - MAY 8-10, 1992		
4. APPLICABLE LANDS		
4.1 Public Land	4.2 Private Land	4.3 Conversion to other Uses
Differentiate between roles of: A. Land Use Planning B. Forest Practices Code Both groups felt this section was somewhat extraneous. Group 1 defined land use as the how and management as the what in dealing with forested land base. Group 2 passed on defining difference.	Option 5A: All private forest land Option 5B: Managed private forest land Alternative Statement of Preferred Option Both groups wide spread of opinion. Group 1: Alternative 1 - criteria for assessing 'downstream impacts' of forest activities on other users, and deciding on some control for private land activity. Alternative 2 - timber harvesting on plots over a certain size would make private land subject to the code 5A - all private forest land, and 5C no private forest land received minor support 5B - Managed private forests land was the most heavily agreed to option. Group 2: •Split between 5A and 5B Alternatives: volunteer compliance on private land, social pressure for voluntary compliance	Option 6A: Include conversion in code Option 6B: Apply only to forest management activities Alternative Statement of Preferred Option Group 1: No conclusions, this option is actually a land use question, tendency toward 6B Group 2: 6B

Reasons:	**Reasons:** •5A is too dictatorial and infringes on personal rights •5B does not cover all possible problem scenarios, such as where private land holds significant proportions of regional representation of forest. **Recommendations:** •Addition to all options: as crown land is turned into private land, it should automatically fall under the code. •Basic principles should apply to all land to control speculation and abuse of forest resource on private land •There should be tax incentives not to log Problems with option decision: •Lack of definitions and background information to allow participants to make comprehensive informed decision •Question of legality of 5A	**Reasons:** •Other regulatory systems should cover conversion issues **Recommendations:** N/A Problems with option decision: •It is not made clear how this specifically relates to the code •Inadequate preliminary explanation and distinction between options.

WORKSHOP SUMMARY - 108 MILE HOUSE - MAY 8-10, 1992			
5. ADMINISTRATION			
5.1 Functions of Administration	Role of Audits	5.2 Administrative organizations	6.1 Incentives
Option 7A: MOF does the monitoring Option 7B: Internal monitoring and external audit Alternative Statement of Preferred Option Group 1: Alternative combination of MOF monitoring and independent auditors; spread of option included both option 7A and 7B. Group 2: 7B completed by independent auditors or new audit branch	Option 8A: Current audit arrangements Option 8B: New audit branch Option 8C: Independent auditors Alternative Statement of Preferred Option See 5.1	Option 9A: Status quo Option 9B: New public organizations Option 9C: Community forest resource boards Option 9D: Forest Practices Board Alternative Statement of Preferred Option Group 1: spread of option; combination of new public organizations and Community Resource Boards. Considerable support for 9A. Group 2: preferred 9D	Option 10A: Marketing seal Option 10B: Increased flexibility and efficiencies Option 10C: Increased security of tenure Option 10D: Liability insurance Option 10E: Stewardship performance bonds Alternative Statement of Preferred Option
Reasons: Group 1: Sense that the status quo situation is working quite well, but that independent audits would be mandatory for public credibility Group 2: Monitoring is related to activities which are licensees responsibility, and	**Reasons:**	**Reasons:** Group 1: •Need for more incorporated ministry operations and increased public, local level input. •sense that new resource initiatives coming on-line in conjunction with CORE will meet expectations of public, resource	**Reasons:**

auditing is related to results which should be accountable to independent body accountable to the larger public. **Recommendations:** •Auditors / Audit Board should report to body independent of resource ministries •Before providing audit results to public, group with negative audit should be allowed to appear before information is made public Problems with option decision: •Lack of clarity about hierarchy of monitoring / audits, who independent auditors would report to.		mangers and industry. Group 2: •Small Forest Practices Board made up of experts in forest management issues would be viable if audited by independent auditors with reports made public locally. **Recommendation:** •Should not use Forest Resources Commission models for Forest Corporation and Ministry of Natural Resources. Concept needs more development to keep it in line with public expectation and economic reality •Community Resource Boards should be appointed and advisory •Creation of these options should not be done as an additional layer of bureaucracy, but as replacement of existing less effective structures. Problems with option decision: •Insufficient explanation of how these structures would mesh or remain separate from land use bodies.	

WORKSHOP SUMMARY - 108 MILE HOUSE - MAY 8-10, 1992			
6.2 PENALTIES			
6.2.1 Removal of Suspension of Licences	6.2.2 Fines	6.2.3 Imprisonment	6.3 Enforcement Climate
Option 11A: Automatic suspension or cancellation Option 11B: Technical suspension of licence Alternative Statement of Preferred Option Group 1: preferred 10A Group 2: spread of opinion between A. B and C. Combination may be most acceptable option	Option 12A: Administrative fines Option 12B: Court fines Alternative Statement of Preferred Option	Option 13A: Imprisonment Option 13B: Status quo Alternative Statement of Preferred Option	Option 14A: Enforcement is automatically applied Option 14B: Independent body Alternative Statement of Preferred Option Both groups agree that public audits are key to improved enforcement Group 1: Alternative option to maintain status quo re on-site assessment of infractions with repeat offenders receiving stricter penalties Group 2: 12A
	Group 1: Combination of 12A and 12B; and 13A and 13B		

Reasons: Group 1: See to be an economic incentive that would convey status Group 2: •10C seen to fringe on public ownership of land •10B happens inevitably to some degree in current system •10E would impact small operators and does already exist. **Recommendation:** •Marketing Seal needs to be strictly controlled to maintain association with high quality, environmentally sound product •Need to develop procedure for dealing with people who do not meet seal standards and continue to market their lumber •Need to make this issue relevant to non-timber users. Problems with option decision: •Discussion of incentives alone is unrealistic •Hard to see how this would apply to all users.	**Reasons:** •Most of these options already exist and work fairly well, should be refined as code is developed **Recommendations:** •People making false statements and intentionally breaching law should be imprisoned. Group 2: •Group believes in penalties, but details must be worked out with the detail of the code Problems with option decision: •difficult to come to conclusions without more information about potential content of the Code.	**Reasons:** •automatic enforcement tied to public release of information would be most effective penalty **Recommendations:** •Need more commitment by government to support resource managers to enforce the Code •Need for a defined, accountable process for administration of incentives and penalties Problems with option decision: N/A

WORKSHOP SUMMARY - 108 MILE HOUSE - MAY 8-10, 1992			
7. TRAINING AND EDUCATION		8. PUBLIC INVOLVEMENT	
7.1 User Certification	7.2 Public Information	8.1 Public Audits	8.2 Public Empowerment
Option 15A: Mandatory certification **Option 15B: Voluntary certification** Alternative Statement of Preferred Option	**Option 16A: Comprehensive code document** **Option 16B: Explanatory publication** Alternative Statement of Preferred Option	**Option 17A: Annual report** **Option 17B: Local public release of audits** **Option 17C: Detailed and general reports** Alternative Statement of Preferred Option	Option 18A: Appointed advisory boards Option 18B: Elected management boards Option 18C: Use existing organizations Alternative Statement of Preferred Option
Reasons: •cost, monitoring and enforcement of mandatory certification would not be feasible **Recommendations:** •Should be combined with good general education for all users. •Should occur as parallel process with development of single IRM code i.e. certification for timber harvesters should be priority •silviculture certification process should be used as a model	**Reasons:** •Need to provide different types of information to a number of different groups, but all information should be available **Recommendations:** •Use of computer technology for cost effectiveness and to avert the need for all information to be duplicated in print Problems with option decision: N/A	**Reasons:** •All are needed, and should be available on demand **Recommendations:** •Before providing audit results to public, group with negative audit should be allowed to appeal before information is made public •Annual report should not be Chief Forester's responsibility •Use of computer technology for cost effectiveness and to avert he need for all information to be duplicated in print Problems with option decision: N/A	**Reasons:** Group 1: Spread of opinion; 18C combination boards and Alternative use of existing MOF processes e.g. LRUPs, with evolving initiatives and CORE's local processes Group 2: No firm decision **Reasons:** •For any option there is a need for commitment and qualifications •This issue is closely tied to land use issues and AAC decisions

•Should be a trained user for every site or group of users, to explain and ensure good practices •Code should instill land ethic, therefore user certification should be oriented to that purpose •This issue should be linked with need for ongoing education of all people in B.C. about forest econology and forest values - should be a lifelong learning experience - could be tied to a Forestry Conservation Studies Network Problems with option decision: •Need clarification about user groups, who they are, how they are monitored			**Recommendations:** •Should be continuity with local governments, regional districts, and user groups •District managers should be required to conduct a certain amount of public involvement Problems with option decision: •A lot of uncertainty about how this would actually work •Needs more clarification, models and definition

WORKSHOP SUMMARY - 108 MILE HOUSE - MAY 8-10, 1992			
9. DEVELOPMENT PROCESS			
8.3 Public Appeal	9.1 Timing	9.2 Public Involvement	9.3 A Living Code
Option 19A: Administrative appeal Option 19B: Forced mediation Option 19C: Private judgement services Option 19D: Court appeal Option 19E: Ministerial Review Panel Alternative Statement of Preferred Option Group 1: No clear decision	**Option 20A: Priority development** Option 20B: Non-priority development Alternative Statement of Preferred Option	**Option 21A: Stakeholder representation** **Option 21B: Broad public discussions** Alternative Statement of Preferred Option	**Option 22A: a learning organization** **Option 22B: Periodic review** Alternative Statement of Preferred Option
Reasons: •This process would be more appropriately tied into CORE's process Group 2: •Alternative: Combination of 19A and 19B. **Reasons:** •Need defined and structured process with time frames attached •More cost effective	**Reasons:** •To deal with integration of needs for well managed forest values, harvesting and economic issues •To provide some security to industry •To meet public demand **Recommendations:** •legislation should be introduced, priority areas defined and work begun to produce a high quality code.	**Reasons:** •Stakeholder representation should be primary focus •Public workshops would allow reality check and broad feedback mechanism. **Recommendations:** •Stakeholder groups should act as a core group for process of code development •All stakeholders must have the opportunity to be involved •Public should have opportunity to review	**Reasons:** •Need to clarify and entrench the review process •reflects philosophy of public involvement •Allows for change and satisfaction of all user group interests **Recommendations:** •Review process should be legislated •Should be tied to review of ethics of professional organizations whose work is related to forest stewardship

Recommendations: •Clarify process to allow easy access to people wishing to use the system Problems with option decision: •Unclear in preamble if this is related to land use or appealing the audit process •Difficult to make decisions on these issues before code is developed •Overlap with existing legislation causes confusion	Problems with option decision: N/A	proposed legislation Problems with option decision: •Lack of information about how process would work in a short time frame.	•Adult educators should be involved in the establishment and processes of the learning organization component Problem with option decision: N/A.

APPENDIX 2

108 Ranch Workshop Participants

Marlie Beets	1710 Lakeside Dr. Williams Lake, B.C.
John Gooding	180 Hodgson Road, Williams Lake, B.C. V2G 4E8
Andy Szalkai	140 Leonard, Quesnel, B.C. V2J 3E5
Jim Antonenko	Box 194, 150 Mile House, B.C. V0K 2G0
Doug Sherriff	Box 1105, Lillooet, B.C.V0K 1V0
John Brete	Box 1175, Lillooet, B.C. V0K 1V0
Steve Jablanczy	Box 106, Alexis Creek, B.C.
Darlyne Brecknock	Box 146, Alexis Creek, B.C.
Patricia McKim-Fletcher	Central Coast Regional District, Bella Coola,B.C.
Lorne Leach	B.C. Cattleman's Association, Kamloops, B.C.
Bruce McLean	Box 6000, Quesnel, B.C. V2J 3J5
George White	Box 4710, Williams Lake, B.C. V2G 2V7
Terry Waldrop	Box 129, 100 Mile House, B.C. V0K 2E0
Carl Hennig	679 Botanio Street, Williams Lake, B.C.
Ken Balaski	#305 - 298 N 1st Street, Williams Lake, B.C.
Kelly Powell	Box 97, 100 Mile House, B.C. V0K 2E0
John Bianchi	Nature Hills Resort, Bridge Lake, B.C.
Garth Greskiw	Box 1736, 100 Mile House, B.C. V0K 2E0
Jerry Sund	Box 340, 100 Mile House, B.C. V0K 2E0
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Walter Cobb	540 Mart Street, Williams Lake, B.C. V2G 1N3
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Rob Thomson	Ministry of E.L.&P., Williams Lake, B.C.

B. C. Forest Resources Commission

A Forest Practices Code

Summary of Public Workshop

Prince George, May 8-10, 1992

Prepared by:
Ken Zielke
Chief Facilitator

for:
Salasan and Praxis

1.0 Introduction

This workshop is part of a series of workshops organized for the B. C. Forest Resources Commission to discuss the implications of and make recommendations for implementing a Forest Practices Code for British Columbia.

Twenty-eight participants attended the workshop. The following commissioners were present: William (Bill) Mulholland, J. (Phil) Hallinan and Cyril Shelford.

The report discusses the various options and recommendations selected by the participants as well as some of the rationale for selecting the options.

A summary of the options and recommendations can be found in a matrix format in Appendix 1.

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COMMENTS RE: "OBJECTIVES"

The objectives on page 9 of the options paper were lettered a-g, from top to bottom for reference.

Objective		Comments
overall (back of agenda)		**general support** for this statement as an encompassing vision or mission statement. But some strong concern over use of term "working forest" since all forest land is considered working for some use(s).
a.	-	clarify what is meant by physiological.
	-	concern over the definition of "enhanced stewardship" with reference to intensive management. "Intensive management" was perceived as a loaded term with too many meanings. Clarify by tying enhanced stewardship to sustainable development with integrated resource management.
	-	some discussion over the facilitation of profit by forest industry. (no resolution- some saw profit issue as inappropriate for a forest practices code).
b.	-	**Some fairly general concern** over the reference to "universally-applied standards" as many felt that this doesn't recognize the diversity of forests in B. C. Some suggestions for "universally effective and reflective standards".
	-	some confusion over when a land-use strategy ends and a code begins when it comes to this objective.
	-	some confusion as to intent- standards for which users? (miners too?).
	-	some concern for the need to be flexible to facilitate changes from user groups.
c.	-	does the term "user" include the public in general?
	-	what portion of the land-base is affected?

d. - some concern that decisions should only apply to standards not land-use.

- some suggestions that code should apply to land-use in general not just forest land.

e & f. - **some fairly general concern** over the inclusion of these two objectives in the Code since it may appear to be a public relations exercise. While recognizing their importance, it is suggested that they not be included as objectives.

- Some participants are fairly adamant that the local and international credibility question is central to the development of a Code.

- some suggestion that the Code should reflect a need for **2-way** learning and open communication between the public and resource managers.

g. - Considerable discussion on this one!

- some concern that this is a really important objective since there is no use having a Code that we can't afford to observe.

- does cost effective apply to creation, implementation and auditing of standards?...or to the standards themselves? (some concern over cost-effective standards...who determines this and how?)

- How do you balance environment, jobs and standard of living? Should there be a reference to sustainability? (isn't this the real issue?).

COMMENTS RE: PRINCIPLES

The principles on page 12 of the options paper were numbered 1-15, from top to bottom for reference.

Principles		Comments
1.	-	A suggestion to change to read "to establish scientifically based , socially acceptable standards necessary/or..."
	-	a few concerns among some re: use of "integrated resource management" since they felt this pertains to land-use not Code. Others felt it was still relevant to practices.
	-	IRM must be clearly defined
2.	-	some concern over reference to biodiversity alone without reference to other values and considerations.
	-	some supported highlighting biodiversity since it seems to be a central issue in forest management and practices.
3.	-	a suggestion to consider safety issue in #4
	-	some suggestions that WCB should deal with this and it should not be in Code.
4.	-	Considerable discussion here:
	-	some felt that international competitiveness has no place in Code especially if used to justify poor practice (felt that good practice will lead to international competitiveness not vice versa).
	-	suggestion that it must be clear that the goal is to balance environment and economy in a socially acceptable manner with the overriding principle of sustainability of environment and economy over the long-term.
	-	change "maintain" to "consider when implementing #1"

5. - Some support- if encompassing means Code "pull together" and gets rid of duplication of bureaucracy.

- a group suggested removal of this principle since they felt it was too vague.

- Must define "encompassing"

7. - **General support** with one suggestion to change "will only to "should or shall".

9. - suggestion to clarify linkage somewhere.

10. - concern that we need to agree and be comfortable with existing policies first.

- concern that we need to have a greater vision for the future than this statement suggests.

11. - most feel that this is highly relevant to the Code, but it must come from well-informed public opinion.

13 - some suggest to change input to involvement with a need to define levels of involvement.

12 & 14 - considerable support for combining these

GENERAL COMMENTS RE: PRINCIPLES:

- too many parenthood statements and it is hard to identify the intention.

- too much redundancy and overlap

- A principle should state that the Code must be concise and very clear.

SUMMARY OF COMMENTS RE: PROPOSED OPTIONS

3.1 STRUCTURAL ELEMENTS

General Support:

- 1B-Enabling legislation, with some suggestions to mix 1A with 1B.
- must be clear, concise and user-friendly

Concerns:

- must avoid bureaucracy
- must still incorporate or support strong penalties in the Code or supporting legislation.
- 1A may not account for diverse B. C. landscape and prescriptive possibilities.

3.2 FUNCTIONAL ELEMENTS

General Support:

- ALTERNATIVE OPTION - All favour a single Code and all agree that IRM must be considered.
- Strong support for sectioning of the Code to have different sections, containing standards pertinent to different user groups.
- Even those who supported option 2C are not saying that timber should necessarily be viewed as the most important or primary use.

Concerns:

- All users must be made accountable. No variances between users.
- Code should not protect timber industry from other forest users and values.
- No double standards.

3.2.2 ACTIVITY VS. OBJECTIVE BASED

General Support:

- 3B- Objective-based
- should support setting objectives for all resource values during local planning.
- allows flexibility for local adaptation of Code.

Concerns:

- accountability must be outlined within local planning processes.
- Code should require that measurable (for audit) objectives be set for all IRM values during planning.
- Must still be able to achieve over-riding objectives of the Code.

3.2.3 RESULTS VS. PROCESS ORIENTED

General Support:

- 4A-Results-oriented (possibly phasing in through 4B)
- To be compatible with an objectives-based Code.
- One group suggests that we start with a process-oriented approach first, phasing into a results-oriented code, since they felt we don't currently have the knowledge and expertise required to match exact procedures to precise results.

NOTE: One group suggested a structure for how a results-oriented, objectives-based code may work (see Appendix 1)

Concerns:

- Must build the public trust.
- Some feel that managers should not have complete freedom to choose processes to achieve results desired. (Note: some felt if results were specific enough that process didn't matter).

4.1 PUBLIC LAND

General Support:

- Not clear among any groups where land-use planning ends and a practices code begins, however all believe that the two elements must be developed together to ensure linkages are developed which will best facilitate the desired results.

- one group discussed the issue of federal lands and concluded that the Code should apply to these lands as well as the provincial forest.

4.2 PRIVATE LAND

General Support:

- Everyone recognizes this issue as being significant for forest management practices HOWEVER MOST SUGGEST IT SHOULD BE OUTSIDE THE CODE:

- most suggest that this is a larger social/political issue than the Code can be expected to deal with.

OPTION:

-One group offered this unique option:

For private land > 80 acres (32 ha):

- scrap homeowners grant
- assessment authority audits to determine classification.
- if not classed as farmland, must be classed as raw land or forest land.
- if raw land, the tax (mill) rate will go up.
- if forest land, require that the land be managed under the Code.

Concerns:

- Site degradation and lack of proper reforestation on private land are all problems that most are concerned about.
- If Code was contingent on this issue, it may be put aside for some time by cautious legislators.
- What about the private rights of individuals?
- What about the role of the regional planning districts?
- Must take away current tax incentives to clear private forest land.

4.3 CONVERSION TO OTHER USES

General Support:

- MOST suggest to refer this to CORE. (Some suggest 6A- parallel to the Agricultural Land Reserve system).

- It is a land-use question outside of the scope of a practices code.

Concern:

- 6A may be too restrictive.

5.1 FUNCTIONS OF ADMINISTRATION AND ROLE OF AUDITS

General Support:

- All stress audits must be INDEPENDENT and EXTERNAL. Less agreement on monitoring.

- Needed due to lack of MoF credibility, especially in the Small Business Enterprise Program.

- Most saw the monitoring function as separate from the audit. Some suggested internal monitoring while others felt uncomfortable with this.

Suggested Definitions:

Audit- measure of overall performance during a given time period (1 year?).

Monitor- Ongoing to check site-specific success/failures. -responsible for enforcement.

Concern:

- What/whose standards will be monitored?
- Layers of bureaucracy in monitoring should be eliminated to simplify the system (this was a strong concern for some).
- Auditors must not have any vested interest or bias.
- Audits should reflect the quality, efficiency, clarity and measurability of objectives.
- need an adequate number of trained auditors and adequate funding to ensure comprehensive audit.
- some suggest cost of audit should be borne by government.

5.2 ADMINISTRATIVE ORGANIZATIONS

General Support:

- Most are in favour of a provincial body like the one described in 9D, although one group specifically suggested that this body be "Ombudsman-like" in nature, similar to a commission like CORE. It is suggested that this body reports to Cabinet or a Inter-Minister committee and that there is public disclosure.

- Most support the idea of Community Resource Boards, but there was little agreement on the exact role of CRB's (advisory?, decision-making?) and the power that they would hold.

Concern:

- Community Resource Boards should not deal with day to day issues.
- Community Resource Boards should be advisory in nature (i.e.. watchdogs).
- If Community Resource Boards only advisory, public concerns will remain un-addressed.
- Community Resource Boards should advise the provincial body on changes to the Code.

6.1 & 6.2 INCENTIVES AND PENALTIES

General Support:

- Many of the participants felt that incentives and penalties were important, but they didn't like the way the issue was framed in the options paper. They recognize the need for strong penalties

and incentives but have difficulty suggesting the form these should take. Most suggest that there is considerable room to make use of existing legislation and regulations and to expand them where necessary.

- support for incentives as being more effective for desired results than penalties.

General Concerns:

- If only incentives used, they may be quite effective but this may not be apparent to the public.
- Penalties must be carefully considered as the economic fate of many people and communities depend on it.
- Without strong penalties, public concerns will not be addressed. The scale of penalties must be clearly stated and visible.
- Visibility is a critical issue. Need to ensure that a few "bad users" don't taint all users.
- Should have hierarchical penalties, consistent with severity of infraction.

NOTE: One group actually addressed each subsection of incentives and penalties and their suggestions are presented below.

6.2.1. Removal or Suspension

General Support:

- 11A-Automatic suspension, with some discretion and an appeal mechanism.

Concern:

- need flexibility
- need to address problem of "sometimes user", or the companies who change their names and start again after they breach license agreement.
- Non-timber users don't have as much to lose

6.2.2 Fines

General Support:

- 12A-Administrative fines preferable.

Concerns:

- 12B can be abused and outcomes too uncertain.
- Court fines only as a last resort.
- Courts take too long and poor performance can continue during this time.

6.2.3 Imprisonment

General Support:

- Status quo

6.3 Enforcement Climate

General Support:

- Independent group for appeals only (not to have fines etc. administered by an independent body).

Concern:

- need some discretion
- need hierarchical penalties
- need a way to make it visible to public so that they know enforcement is being done.

7.1 USER CERTIFICATION

General Support:

- Combination of both 15A and 15B. (some strongly favoured 15B-voluntary only).

- will vary according to user group.

Concern:

- too many requirements for certification now, although there may be room for further mandatory training if specific to user group.
- responsibility for training should be with the user themselves.
- Don't want extra bureaucracy.
- Strict requirements for specific results from practices within the Code should force people to seek the training they need on their own.

7.2 PUBLIC INFORMATION

General Support:

- General support for the need for an explanatory publication which is simple and easily understood. A number of people feel that a comprehensive document is also necessary.

- should be available in libraries

Concern:

- brief document might "trivialize" the Code.
- costs for all these documents could be high- may consider charging a nominal fee for them.

8.1 PUBLIC AUDITS

General Support:

- everyone supports 17A and 17B together, with some support for inclusion of 17C as well.

- provincial annual reports with local public releases.
- audits should be public documents and should be released to the media or whoever requests it.

8.2 PUBLIC EMPOWERMENT

General Support:

- There was frustration over the way this section was presented. Generally there was support for involvement of a provincial body and community resource boards and it was felt that these boards must represent and be accountable to the public. There was also agreement that the stakeholders and public in general must have input into the Code.

- some felt that empowerment of these boards is an issue which CORE will have to address since conceivably these boards will also be dealing with land-use issues.

- Some were reluctant to support an option since it was not completely clear what these boards will do.

Concern:

- What is the use of having boards with no power?
- Must be careful about increasing bureaucracy and costs for administration.
- must be guided by provincial goals and objectives.
- the public is demanding more power and won't settle for less.

8.3 PUBLIC APPEAL

General Support:

- No option supported since most people believe that the appeal mechanism will depend on what is being appealed.

- suggest that this concern may have to be revisited at a later date once Code almost complete.

9.1 TIMING

General Support:

- Priority Development

9.2 PUBLIC INVOLVEMENT

General Support:

- With recognition that the Code will be written by professionals, most supported some stakeholder and public involvement.

- One group suggested a timeline for development of the Code, illustrating where this public/stakeholder review should occur- before the initial draft is finalized and during the continual update process (see Appendix 2).

Concern:

- Some feel that the government has its own agenda for this
- Some were not clear what is meant by "public involvement" (for what?, when?)

9.3 A LIVING CODE

General Support:

- Combo of 22A and 22B- a learning organization with periodic review.

- must be dynamic with a mechanism to update on a regular enough basis to incorporate new technology, data and values.

APPENDIX 1

WORKSHOP SUMMARY - PRINCE GEORGE - MAY 8-10, 1992			
3. FORMAT OF THE CODE			
3.1 Structural Elements	3.2 Functional Elements	3.2.2 Activity vs. Objectives Based	3.2.3 Results vs Process
Option 1A: Prescriptive Legislation **Option 1B: Enabling Legislation** Option 1C: Volunteer Compliance Alternative Statement of Preferred Option •Suggestions to mix 1A with 1B. •Must be clear, concise and user-friendly **Concerns:** •Must avoid bureaucracy •Must still incorporate or support strong penalties in the Code or supporting legislation. •1A may not account for diverse B.C. landscape and prescriptive possibilities.	Option 2A: Single Code and IRM Option 2B: IRM and Multiple Codes Option 2C: Single Code Emphasizing Timber Mgt. and Protection **Alternative Statement of Preferred Option** All favour a single Code and all agree that IRM must be considered. •Strong support for sectioning of the Code to have different sections, containing standards pertinent to different user groups. •Even those who supported option 2C are not saying that timber should necessarily be viewed as the most important or primary use.	Option 3A: Activity based Code **Option 3B: Objectives based Code** Alternative Statement of Preferred Option •Should support setting objectives for all resource values during local planning. •Allow flexibility for local adaptation of Code. **Concerns:** •Accountability must be outlined within local planning processes. •Code should required that measurable (for audit) objectives be set for all IRM values during planning. •Must still be able to achieve over-riding objectives of the Code.	**Option 4A: Results oriented Code** Option 4B: Process oriented Code Alternative Statement of Preferred Option •Possibly phasing in through 4B. •To be compatible with an objectives based Code. *One group suggests that we start with a process-oriented approach first, phasing into a results-oriented code, since they felt we do not currently have the knowledge and expertise required to match exact procedures to precise results. **Note:** •one group suggested a structure for how a results-oriented, objective-based code may work (see Appendix 1)

	Concerns: •All users must be made accountable. No variances between users. •Code should not protect timber industry from other forest users and values. •No double standards.		**Concerns:** •Must build the public trust. •Some feel that managers should not have complete freedom to choose processes to achieve results desired. (Note: some felt if results were specific enough that process did not matter).
Reasons:	**Reasons:**	**Reasons:**	**Reasons:**

WORKSHOP SUMMARY - PRINCE GEORGE - MAY 8-10, 1992		
4. APPLICABLE LANDS		
4.1 Public Land	4.2 Private Land	4.3 Conversion to other Uses
Differentiate between roles of: A. Land Use Planning B. Forest Practices Code •Not clear among any groups where land-use planning ends and a practices code begins, however all believe that the two elements must be developed together to ensure linkages are developed which will best facilitate the desired results. - One group discussed the issue of federal lands and concluded that the Code should apply to these lands as well as the provincial forest.	Option 5A: All private forest land Option 5B: Managed private forest land Alternative Statement of Preferred Option •Everyone recognizes this issue as being significant for forest management practices, HOWEVER MOST SUGGEST IT SHOULD BE OUTSIDE THE CODE: - most suggest that this is a larger social/political issue than the Code can be expected to deal with. Option: •One group offered this unique option: For private land > 80 acres (32 ha): - scrap homeowners grant - assessment authority audits to determine classification. - if not classed as farmland, must be classed as raw land or forest land. - if raw land, the tax (mill) rate will go up. - if forest land, require that the land be managed under the Code.	Option 6A: Include conversion in code Option 6B: Apply only to forest management activities Alternative Statement of Preferred Option •MOST suggest to refer this to CORE. (Some suggest 6A - parallel to the Agricultural Land Reserve system). - It is a land-use question outside of the scope of a practices code. **Concern:** •6A may be too restrictive.

	Concerns: •Site degradation and lack of proper reforestation on private land are all problems that most are concerned about. •If Code was contingent on this issue, it may be put aside for some time by cautious legislators. •What about he private rights of individuals? •What about the role of the regional planning districts? •Must take away current tax incentives to clear private forest land.	
Reasons:	**Reasons:**	**Reasons:**

WORKSHOP SUMMARY - PRINCE GEORGE - MAY 8-10, 1992			
5. ADMINISTRATION			
5.1 Functions of Administration	Role of Audits	5.2 Administrative organizations	6.1 Incentives
Option 7A: MOF does the monitoring Option 7B: Internal monitoring and external audit Alternative Statement of Preferred Option •All stress audits must be INDEPENDENT and EXTERNAL. Less agreement on monitoring. - Needed due to lack of MOF credibility, especially in the Small Business Enterprise Program. - Most saw the monitoring function as separate from the audit. Some suggested internal monitoring while others felt uncomfortable with this. **Suggested Definitions:** •Audit - measure of overall performance during a given time period (1 year?). •Monitor - ongoing to check site-specific success/failures; responsible for enforcement.	Option 8A: Current audit arrangements Option 8B: New audit branch Option 8C: Independent auditors Alternative Statement of Preferred Option Same as Functions of Administration.	Option 9A: Status quo Option 9B: New public organizations Option 9C: Community forest resource boards Option 9D: Forest Practices Board Alternative Statement of Preferred Option **General Support:** •Most are in favour of a provincial body like the one described in 9D, although one group specifically suggested that this body be "Ombudsman-like" in nature, similar to a commission like CORE. It is suggested that this body reports to cabinet or a Inter-Minister committee and that there is public disclosure. •Most support the idea of Community Resource Boards, but there was little agreement on the exact role of CRB's (advisory?, decision-making?) and the power that they would hold.	Option 10A: Marketing seal Option 10B: Increased flexibility and efficiencies Option 10C: Increased security of tenure Option 10D: Liability insurance Option 10E: Stewardship performance bonds Alternative Statement of Preferred Option **General Support:** • Many of the participants felt that incentives and penalties were important, but they didn't like the way the issue was framed in the options paper. They recognize the need for strong penalties and incentives but have difficulty suggesting the form these should take. Most suggest that there is considerable room to make use of existing legislation and regulations and to expand them where necessary. • support for incentives as being more

Concern: •What/whose standards will be monitored? •Layers of bureaucracy in monitoring should be eliminated to simplify the system (this was a strong concern for some).•Auditors must not have any vested interest or bias. •Audits should reflect the quality, efficiency, clarity and measurability of objectives. •Need an adequate number of training auditors and adequate funding to ensure comprehensive audit.•Some suggest cost of audit should be borne by government.		**Concern:** •Community Resource Boards should not deal with day to day issues. •Community Resource Boards should be advisory in nature (i.e. watchdogs). •If Community Resource Boards only advisory, public concerns will remain unaddressed. •Community Resource Boards should advise the provincial body on changes to the Code.	effective for desired results than penalties. **Concerns:** • If only incentives used, they may be quite effective but this may not be apparent to the public. • Penalties must be carefully considered as the economic fate of many people and communities depend on it. • Without strong penalties, public concerns will not be addressed. The scale of penalties must be clearly stated and visible. • Visibility is a critical issue. Need to ensure that a few "bad users" don't taint all users. • Should have hierarchical penalties, consistent with severity of infraction. **NOTE:** One group actually addressed each subsection of incentives and penalties and their suggestions are presented below.
Reasons:	**Reasons:**	**Reasons:**	**Reasons:**

WORKSHOP SUMMARY - PRINCE GEORGE - MAY 8-10, 1992			
6.2 PENALTIES			
6.2.1 Removal of Suspension of Licences	6.2.2 Fines	6.2.3 Imprisonment	6.3 Enforcement Climate
Option 11A: Automatic suspension or cancellation Option 11B: Technical suspension of licence Alternative Statement of Preferred Option **General Support:** • 11A-Automatic suspension, with some discretion and an appeal mechanism. **Concern:** • need flexibility • need to address problem of "sometimes user", or the companies who change their names and start again after they breach licence agreement. • Non-timber users don't have as much to lose	Option 12A: Administrative fines Option 12B: Court fines Alternative Statement of Preferred Option **General Support:** • 12A-Administrative fines preferable. **Concerns:** • 12B can be abused and outcomes too uncertain. • Court fines only as a last resort. • Courts take too long and poor performance can continue during this time.	Option 13A: Imprisonment Option 13B: Status quo Alternative Statement of Preferred Option **General Support:** •Status quo	Option 14A: Enforcement is automatically applied Option 14B: Independent body Alternative Statement of Preferred Option **General Support:** • Independent group for appeals only (not to have fines etc. administered by an independent body). **Concern:** • need some discretion • need hierarchical penalties • need a way to make it visible to public so that they know enforcement is being done.
Reasons:	**Reasons:**	**Reasons:**	**Reasons:**

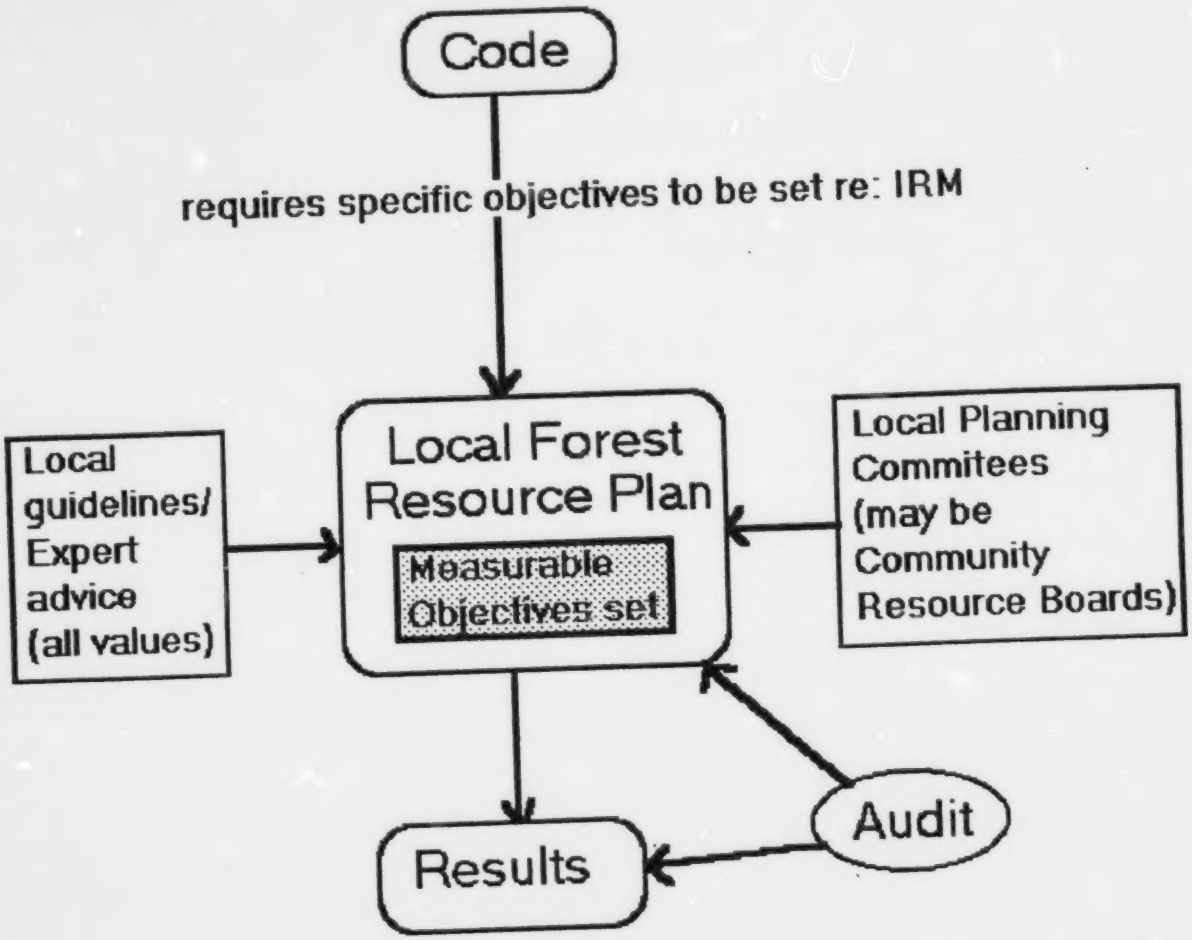
WORKSHOP SUMMARY - PRINCE GEORGE - MAY 8-10, 1992			
7. TRAINING AND EDUCATION		8. PUBLIC INVOLVEMENT	
7.1 User Certification	7.2 Public Information	8.1 Public Audits	8.2 Public Empowerment
Option 15A: Mandatory certification Option 15B: Voluntary certification Alternative Statement of Preferred Option **General Support:** • Combination of both 15A and 15B. (some strongly favoured 15B-voluntary only). • will vary according to user group. **Concern:** • too many requirements for certification now, although there may be room for further mandatory training if specific to user group. • responsibility for training should be with the user themselves.	Option 16A: Comprehensive code document Option 16B: Explanatory publication Alternative Statement of Preferred Option **General Support:** • General support for the need for an explanatory publication which is simple and easily understood. A number of people feel that a comprehensive document is also necessary. • should be available in libraries **Concern:** • brief document might "trivialize" the Code.	Option 17A: Annual report Option 17B: Local public release of audits Option 17C: Detailed and general reports Alternative Statement of Preferred Option **General Support:** • everyone supports 17A and 17B together, with some support for inclusion of 17C as well. • provincial annual reports with local public releases. • audits should be public documents and should be released to the media or whoever requests it.	Option 18A: Appointed advisory boards Option 18B: Elected management boards Option 18C: Use existing organizations Alternative Statement of Preferred Option **General Support:** • There was frustration over the way this section was presented. Generally there was support for involvement of a provincial body and community resource boards and it was felt that these boards must represent and be accountable to the public. There was also agreement that the stakeholders and public in general must have input into the Code. • some felt that empowerment of these boards is an issue for which CORE will have to address since conceivably these

• Don't want extra bureaucracy. • Strict requirements for specific results from practices within the Code should force people to seek the training they need on their own.	• costs for all these documents could be high- may consider charging a nominal fee for them.		boards will also be dealing with land-use issues. • Some were reluctant to support an option since it was not completely clear what these boards will do. **Concern:** • What is the use of having boards with no power? • Must be careful about increasing bureaucracy and costs for administration. • must be guided by provincial goals and objectives. • the public is demanding more power and won't settle for less.
Reasons:	**Reasons:**	**Reasons:**	**Reasons:**

WORKSHOP SUMMARY - PRINCE GEORGE - MAY 8-10, 1992			
9. DEVELOPMENT PROCESS			
8.3 Public Appeal	9.1 Timing	9.2 Public Involvement	9.3 A Living Code
Option 19A: Administrative appeal Option 19B: Forced mediation Option 19C: Private judgement services Option 19D: Court appeal Option 19E: Ministerial Review Panel Alternative Statement of Preferred Option **General Support:** • No option supported since most people believe that the appeal mechanism will depend on what is being appealed. • suggest that this concern may have to be revisited at a later date once Code almost complete.	Option 20A: Priority development Option 20B: Non-priority development Alternative Statement of Preferred Option **General Support:** • Priority Development	Option 21A: Stakeholder representation Option 21B: Broad public discussions Alternative Statement of Preferred Option **General Support:** • With recognition that the Code will be written by professionals, most supported some stakeholder and public involvement. • One group suggested a timeline for development of the Code, illustrating where this public/stakeholder review should occur- before the initial draft is finalized and during the continual update process (see Appendix 2). **Concern:** • Some feel that the government has its own agenda for this • Some were not clear what is meant by "public involvement" (for what?, when?)	Option 22A: a learning organization Option 22B: Periodic review Alternative Statement of Preferred Option **General Support:** • Combo of 22A and 22B- a learning organization with periodic review. • must be dynamic with a mechanism to update on a regular enough basis to incorporate new technology, data and values.
Reasons:	**Reasons:**	**Reasons:**	**Reasons:**

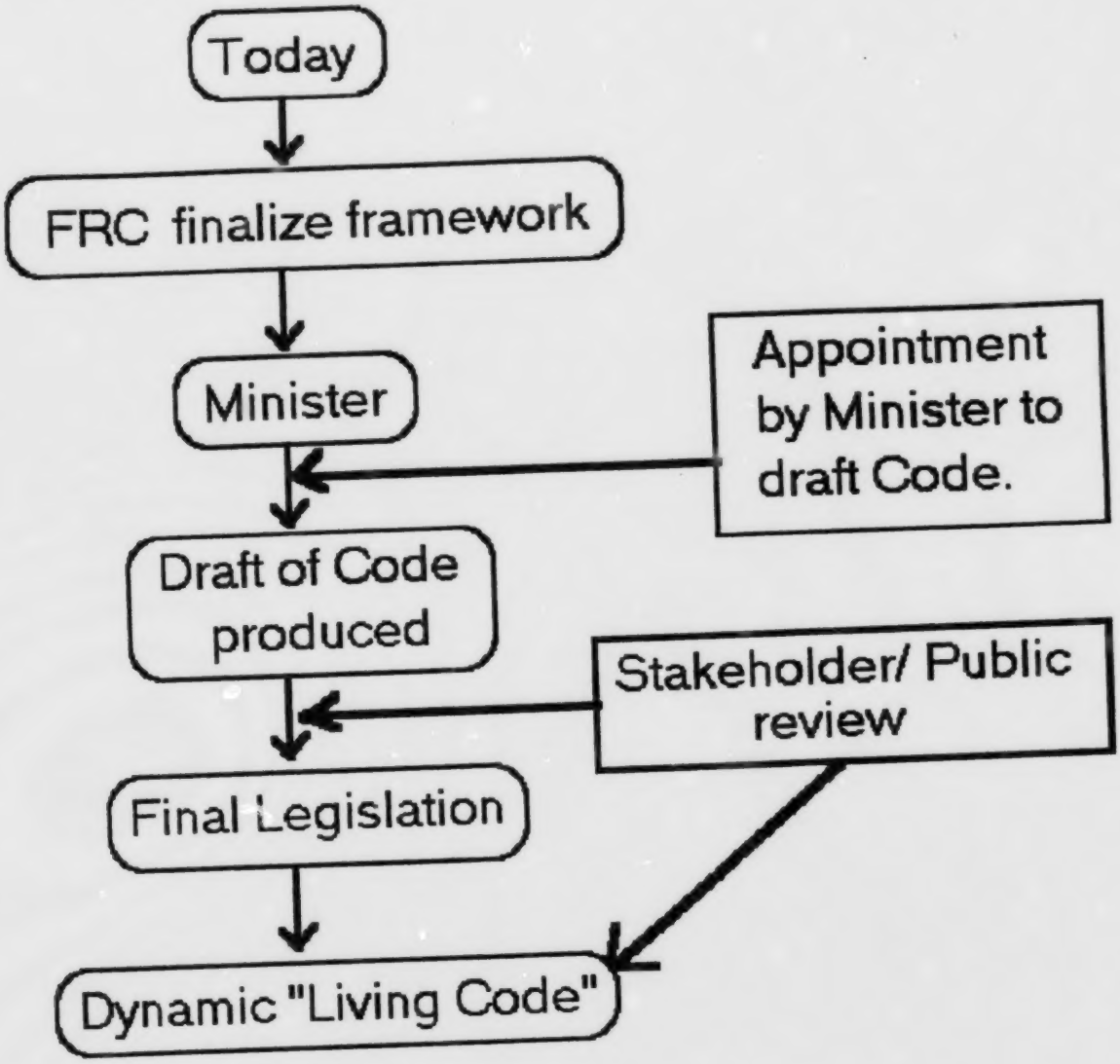
APPENDIX 2

A suggestion for an objectives-based/results-oriented Code:


Code
requires specific objectives to be set re: IRM
Local guidelines/ Expert advice (all values)
Local Forest Resource Plan
Measurable Objectives set
Local Planning Commitees (may be Community Resource Boards)
Audit
Results

APPENDIX 3

A Suggested Timeline for the For. Prac. Code:



APPENDIX 4

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FRC REPRESENTATIVES:	Bill Mullholland Cyril Shelford Phil Halinan

B. C. Forest Resources Commission

A Forest Practices Code

Summary of Public Workshop

Vancouver, May 8-10, 1992

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for:
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1.0 Introduction

This workshop is part of a series of workshops organized for the B.C. Forest Resources Commission to discuss the implications and make recommendations for implementing a Forest Practices Code for British Columbia.

Twenty-nine participants attended the workshop. The following commissioners were present: A. L. (Sandy) Peel and John Szauer.

The report discusses the various options and recommendations selected by the participants as well as some of the rationale for selecting the options.

A summary of the options and recommendations can be found in a matrix format in Appendix 1.

Group 1 - Woodward and Fardoe
Group 2 - MacLeod and Antcliffe
Group 3 - Rankin and Dawson

General Themes and Areas of Agreement

- There is a need for enabling legislation for a Forest Practices Code and a desire for continuing public input in developing the specifics of legislation

- The Code should contain a clear process by which locally applied practices can be determined; for the monitoring and auditing of practices; and for avenues of appeal if practices are not followed

- Standards shouldn't be the lowest common denominator, instead should lead to the best local practice

- Communication is critical, communication and collaboration should be encouraged in both the development and application of a Code

- Local involvement should be a key element of the Code

- The Code should encourage decentralization of government agencies and forest management procedures

- The Code should apply to all forest users on all forest lands, both public and private

Unresolved Issues

• While workshop participants agreed on the need to increase local level involvement in forest practice decisions and to minimize government bureaucracy, they differed or were uncertain about the administrative structures and means of public empowerment for the Code

• There is an overlap between land use planning and a Forest Practices Code which must be addressed by the Commission on Resources and Environment (CORE) and those responsible for developing the Code

General Concerns

• Where and how is the content of the Code developed? There is an ongoing need for public involvement in the content of the Code as well as in determining the structure

• Process: may not be a "buy-in" by environmental groups, potential for rejection of decisions reached by "consensus" could lead to boycotts and "gridlock", a forum is needed to resolve issues with commitment from the outset, it must be demonstrated that the process works

• Cost-effectiveness, recognize the potential for high costs of regulation, monitoring and enforcement, and administration; implementing the Code will take political will and time

• Concern that decisions regarding development of the Code are already "a done deal" in the minds of FRC members

Objectives and Principles Discussion

Objectives - page 9

Group 1
Note: The Minister's summary objectives provides a useful focus for the Code

1. Replace "enhanced stewardship" with "sustainability"
   - Need to clarify sustainability in relation to "growth and limits to growth"
   - Need to fit the Code in the broader context (i.e. acknowledge global limits to growth)

2. Must also allow for input from the local level

3. Public must be part of the "management system"

4. Code must move beyond "accountable" to a more complete public involvement

5. "Provide assurance" suggests that the role of the Code is public relations rather than public involvement use of the Code as a management tool

6. Public education is necessary before meaningful public participation is possible

7. "Cost-effective" needs defining in this context
    - Need to account for environmental costs
    - Should be practical and feasible
- "Enforceable" should be separated from "cost-effective"

Group 2

1. Not clear what "biological and physiological capacity of the forest" means, the objective should clearly reflect the range of values that are encompassed within a forest

6. Should express the idea that "understanding" does not mean agreement, but instead will lead to more focused and productive debate in the province, the idea of education of all parties should be expressed

Add:

- To link forest practices to resource management priorities expressed in land use plans
- To provide a flexible system for the inclusion of changes in scientific information, technology and societal needs and values
- To provide a vehicle that makes the realization of true integrated resource management possible, relieving pressure on issues of land use
- To develop a code that incorporates existing information and regulation within a single framework
- To reduce waste (this idea is not explicit in #1)

Group 3

Notes:

- Definition of terms is needed, i.e. enhanced stewardship, biological diversity
- Concern with the use of the term "intensive" with respect to enhanced stewardship, has negative connotations in many peoples minds

1 & 3. These objectives are linked, need broad standards with a clear process for developing regional and local applications
    - Standards shouldn't be the lowest common denominator, instead should lead to the best local practice

Note: concern re overly rigid prescriptions too high in the process, need locally appropriate prescriptions

3. The Code should apply to all forest users and to all forest lands

5. Add moral and scientific basis, "sensitive to social values and changes in scientific knowledge"

Add:
• The Code should serve to sustain forests and aid communities in their role as contributors to employment and the provincial economy

• To encourage communication and involvement of all interests in determining appropriate forest practices

Constraints - page 11

Group 2
1. The work of the Pearse Commission and others cannot be considered "ad hoc." If there is an ad hoc element, it is the integration of interdisciplinary regulation across agency mandates.

2. Again, this does not reflect the reality that there are many standardized forest practices that are used and accepted across the province.

4. There is also a general mistrust of professionals, irrespective of their practice.

5. It is worth noting that it takes three human generations to grow a new crop of trees and consequently a certain amount of "resistance to change" is a stabilizing influence. Foresters should not react too quickly to unproven ideas.

6. The lack of resource data is critical, perhaps superseding the need for the Code itself. This extends to our lack of understanding of forest practices and how they affect forest ecology.

7. Inconsistent forest management funding is as much a matter of changing political commitment (i.e. public resolve) as it is economic cycles, although the two are related.

Add:
• Ownership of forest land is a significant constraint. Current arrangements discourage industry reinvestment. The resolution of native land claims may also significantly affect the application of the Code in some areas.

Principles - page 12

Group 1
Notes:
• Who will use the Code?
• Code must interface with CORE at provincial, biogeoclimatic and local levels
• Need a "one window" approach to avoid overlaps
• Code must address "long term" commitment to forest management
• Objectives and Principles should be combined, there is little difference between them

1. Include aesthetic, intrinsic, spiritual and cultural values
   - difficult to manage for all values at same time, must prioritize values through review of land use allocations

4. Must include "community stability"
   - should be international cooperation rather than competition
   - can standards be "cost effective"?

9. Need to clarify the links
   - must recognize the integrity of the forest land base
   - land use must be designated before management decisions can be made
   - must use an integrated management approach
   - need local resource boards (role of CORE)
   - what is the link between the Code and CORE?

Group 2

1. This list cannot be made all inclusive so do not name values

3. The safety of humans should have a high priority in all forest pursuits, not just timber harvesting

4. Extend this concept to reflect the need for balance between economic and biological considerations and that the two are complementary rather than juxtaposed. A vigorous economy and a healthy environment are interdependent, this is in keeping with the concept of sustainable development

6. Separate provincial, regional and community requirements from ecological requirements. What is a provincial ecological requirement?

12. This point should be clarified to reflect who is accountable for what

Add:

- The Code should be brief, clear, simple and implementable
- The Code must be supported by those who will be required to implement it in the field

Group 3

3. Reword: "safety must be a high priority when considering all forest resource practices"

4. Reword: "The Code should lead to effective and efficient standards and implementation processes."

5. Delete: "prescriptions"

11. Reword: "in response to changes in scientific knowledge and public values"

15. Should encourage all forest users to be properly trained

Add:
• The Code should encourage consultative and collaborative processes among forest land users and interests

Management Instruments - page 16

Group 2
• Overlapping jurisdiction issues must be resolved, there should be a single set of forest practice requirements, i.e. Federal Fisheries Act and existing guidelines, environmental impact assessment and forestry regulations
• Cooperative guidelines may not reflect the requirements of individual Acts
• Inter-agency conflict is not helpful
• Contracts and license documents are not shown in the table of management instruments

Options - Summary of Participant Responses

Option 1 - Structural Elements

All groups: Preferred Option 1B, Enabling Legislation

Reasons:
• Code must allow for management flexibility and recognize local variations
• Volunteer compliance unrealistic in present atmosphere of lack of public trust in government and companies
• Prescriptive legislation is not responsive to change

Recommendations:
• Legislative authority for Code must be clearly assigned
• Need checks and balances in legislation as well as flexibility, clear prescriptions should be detailed under the Code at a local level
• Relationship to existing regulations must be defined
• Principles should be prescribed in legislation
• Legislation should decentralize decision making
• Need flexible amendment process

Concerns:
• More clarity is needed for complete discussion of legislation, what is a Forest Practices Code and where does it fit relative to other legislation?
• A combination of Options A and B may be needed

Option 2 - Functional Elements

Two groups: Preferred Option 2A, Single Code and IRM
Group 3: Preferred an alternative statement, start with developing a Code related to timber harvesting activities encompassing a whole forest approach and IRM, then broaden to address other forest use activities

Reasons:
- Need to address timber harvesting activities immediately as they are the most intrusive
- Option 2C is too narrow in focus and unacceptable to the public
- Option 2B may not be workable and would accentuate conflict

Recommendations:
- Full range of resource values should be considered, including spiritual
- Protection should be recognized as legitimate management option
- Address critical management areas first
- Must be integrated with land use zones
- Need to look at forest as a whole and keep an integrated focus

Option 3 - Activity vs. Objectives Based

All groups: Preferred Option 3B, Objectives Based Code

Reasons:
- Management flexibility and public accountability are needed
- If the Code is to be linked to land use, then it must be categorized by management objectives

Recommendations:
- Activities should fall under objectives, Option 3A should be a subset of 3B
- Objectives for public involvement are needed

Concerns:
- Gray area among all the choices in options 3 and 4, a combination of objectives, activities, processes and results are needed

Option 4 - Results vs. Process

Two groups: Preferred Option 4A, Results-oriented Code
Group 1: Preferred an alternative statement combining both options and a link with Option 3A,

Reasons:
- Need clarity for public process and flexibility for on the ground management
- Although process is important, results are the most important measure of success of the Code
- Results can be measured and audited

Recommendations:
- Process used to accomplish results must also be included

Concerns:
- Confusion over "process" and "public input" in options paper, what is a "result"?
- May be difficult to measure results, i.e. ambient qualities may change, must check progress along the way

Public Land - pages 22 and 23

Differentiate between the roles of land use planning and Forest Practices Code.

Groups felt that there is a continuum between the two. A Forest Practices Code provides direction on how to deliver what we decide we want in a land use plan. Group 1 saw land allocation as a CORE responsibility and a Forest Practices Code addressing forest management on designated land.

Option 5 - Private Land

All groups: Preferred Option 5A, All Private Forest Land. Groups also felt that the Code should apply to all public land (where zoning implies natural resource management) including federal land.

Reasons:
- Existing problems with poor practices on private land and a need for control of forest management
- Forest production on private land is significant
- Same rules should apply to everyone

Recommendations:
- A clear understanding of managed private forest land is needed (use the Assessment Act), the Code should apply to managed private forest land if timber production is the focus
- Incentives are needed for private land holders to comply with the Code, emphasis should be on incentives and the education of property holders
- Need bureaucratic simplicity, don't further burden the public with government administration costs

Option 6 - Conversion to other uses

Group 1: Preferred Option 6A, feeling that the Code should provide a process where conversion of forest lands to other uses may be considered
Group 2: Preferred an alternative option statement which outlined three classifications of forest land: 1) Code applies to these lands in full; 2) only some categories of the Code apply; 3) Code is applied when an established threshold is crossed (i.e. impact on other resource values)
Group 3: Preferred Option 6B, feeling that Option 6B follows from their choice of 5A, the Code would apply to all "forest land" and conversion would be covered under the land classification system

Recommendations:
- Remove disincentives to clearing of private forest land, objective of the Code should be to maintain private lands in forest use
- Make sure that the Code is not a further disincentive to maintaining land in forest

Concerns:
- Conversion can't be separated from private property rights

Option 7 - Functions of Administration

Two groups: Preferred Option 7B
Group 2: Preferred a combination of A and B, reasoning that both parties should monitor to satisfy different requirements, the government to satisfy compliance with contracts and licensees to ensure efficient delivery by employees

Reasons:
- Monitoring is a government responsibility
- Option B will build public trust and provide more credibility
- Option B with internal and external monitoring

Recommendations:
- The public should have a role in monitoring
- Auditing must be independent to have credibility

Concerns:
- Must clarify what is being monitored
- Some concern expressed over how often monitoring and audits are conducted

Option 8 - Role of Audits

All groups: Preferred Option 8C, Independent Auditors, one group noted that there should also be a public reporting requirement
Group 2: Also added Option 10C, stewardship performance bonds, to this option

Reasons:
- Need to establish credibility with the public

Recommendations:
- Costs of auditing must be considered, could set up an audit fund to which all forest users contribute on some basis
- Need to define scope of audits, i.e. what is being audited
- May need a "team approach"
- Could be independent auditors certified by an administrative body
- Audit both the responsible agency and licensee
- Auditing should be combined with performance bonds

Concerns:
- Who will pay? (must be equitable)

Option 9 - Administrative Organizations

All groups: provided alternatives and comments on this option, all noted that additional local input is needed and expressed concern about duplication of bureaucracy

Group 1: recommended Options B and D, with two levels: 1) a Provincial Forest Resource Board; and 2) Local Boards
Notes:
- A "super ministry" is supported but a Forest Resources Corporation is not
- Local and regional input are needed
- Delegation of authority is an issue
- Groups already exist at a local level and should be incorporated

Group 2: was not happy with any of the choices named in the options paper but felt that 9D could bring together all interests in applying and administering the Code while avoiding more bureaucracy

Group 3: felt that all options except B should be considered, as well as an alternative statement
- 9A with independent audits to avoid creating new bureaucracies
- 9C to include people from local communities
- 9D with local participation as well
- Alternative: decentralization of existing agencies to minimize bureaucracy and expense, while accommodating local needs and maintaining independence from political interference

Concerns:
- Inappropriate to determine an administrative structure before clear roles and functions are determined

Option 10 - Incentives

All groups: suggested a combination of Options 10 B and C
Group 2: also suggested Option 10A
Group 3: felt that combinations of any of the options were possible

Reasons:
- Incentives are needed to encourage performance above minimal Code requirements
- Only real security for industry (Option 10C) is proprietorship, yet that is unpalatable to the public

Recommendations:
- 10A should be independent of government with some public input (not just a rubber stamp), group 3 viewed this as an essential incentive while group 1 felt that a marketing seal should be left to industry
- 10B was viewed as important but contradictory, the addition of a Code will put an

additional burden on efficiency
• 10C is needed to encourage company stewardship, perhaps performance could affect security of tenure, security should be in the form of area-based, rather than volume based, tenures
• 10D was viewed as unworkable by group 1

Options 11, 12 and 13 - Penalties

All groups: felt that penalties should fit the offense and a range of options, including suspension of licenses, fines and imprisonment, is needed, all groups also felt that positive reinforcement would be more effective in ensuring appropriate forest practices than relying primarily on penalties

Recommendations:
• Option 11A, delete "automatic" and replace with discretionary, could also include a reduction in cut allowed, consider automatic suspension after repeat offenses perhaps
• Government must be given the ability and clear direction to enforce the Code

Group 1 Recommendations:
• A hierarchy of penalties geared to the significance of the infraction
    1) "Go in and fix it"
    2) Administrative fines and penalties (no prosecution)
    3) Technical suspension
    4) Imprisonment (concern: who is imprisoned?)
    5) Suspension or cancellation of license
• Need to consider remedial actions (i.e. mitigation or community service orders) as a penalty
• Use fine revenues for local mitigation work
• Board would make recommendations to the Attorney general and administer fines, Courts would decide in prosecution
• Need ability to immediately stop work to enforce the Code
• Long term liability and responsibility of companies must be addressed
• Fines must match the severity of the infraction, the history of the offender and ability to pay
• Concern regarding long term or delayed impacts

Option 14 - Enforcement Climate

Two groups: Preferred alternative option statements
Group 1: Preferred Option 14B, Independent Body.

Group 1 Recommendations:
• Must define who recommends prosecution and who prosecutes
• Enforcement of the Code should avoid clogging the courts
• Need rights of appeal (Forest Practices Board => Tribunal => Courts)

• Define who can appeal enforcement decisions ensuring clear access to appeal by members of the public
• Need "Whistle blower Protection"
• Should be no statute of limitation on enforcement actions for area base tenures

Group 2 Recommendations:
• Empower line agencies to enforce at their discretion
• Strengthen enforcement component of Acts and simplify managers' ability to enforce them

Group 3 Recommendations:
• Independent audit of the government agencies' enforcement of the Code
• All forest users should be included

Option 15 - User Certification

All groups: Felt that the degree of certification should reflect the degree of responsibility involved, groups differed in their recommended approach to achieving certification
Group 1: Preferred a combination of 15A and B
Group 2: Recommended Option A
Group 3: Recommended an alternative option statement that certification should be mandatory only for certain activities and professions, dependent on the degree of responsibility

Reasons:
• Mandatory certification makes sure that training happens

Recommendations:
• Education of all, certification of those who get dispositions or licenses
• Training does not equal certification
• Mandatory certification could be phased in with certain elements applying only to certain workers
• Board could set standards which companies must then comply with
• Consider the Swedish model

Concerns:
• How are different forest users trained?
• Who will do the certifying and set up programs and examinations?
• Costs of certification
• Don't want another level of bureaucracy

Option 16 - Public Information

All groups: Preferred a combination of both Option A and B

Reasons:
- Both should be available and are needed to reach different audiences

Recommendations:
- Should maximize public awareness and knowledge of the Code
- Could circulate pamphlets (i.e. at all campsite entrances)

Option 17 - Public Audits

All groups: Preferred a combination of all listed options

Reasons:
- Need all levels to meet different needs

Recommendations:
- Local public release of audits should not be "glossy" as referred to in the options paper
- Difference between auditing and monitoring, avoid duplication
- Should be opportunity for company or individual to review and modify actions prior to the release of audits
- Need definition of term "audit," is it meant in the same sense as financial audits?

Concerns:
- Significant costs to audits

Option 18 - Public Empowerment

Each group: chose a different combination of options or alternative option statements

Group 1: preferred Option 18C, calling the tool Community Resource Boards, with the addition of an appointed Provincial Forest Practice Board

Notes:
- Boards should reflect range of stakeholder groups and be structured so as to avoid takeover by specific interests
- Public empowerment structure should balance provincial and local interests, the relationship between the Provincial Forest Practices Board and Local Resource Boards needs to be defined
- Boards should be tied to the democratic system, possibly on the School Board model, with both elected and appointed members
- Ministries would be present on Boards but not as voting members

Group 2: chose to outline a separate "model for public empowerment"
Attributes:
• must rationalize competing needs at local, regional, provincial, national and global levels
• must consider competitiveness of industries
• must satisfy community needs for empowerment, involvement and accountability in making local natural resource decisions
• must give communities a financial stake in resource decisions
• decisions must be made within limits of sustainability
• need to define spheres of influence and relate to competitiveness

Ideas to create a model:
• initiate pilot projects
• start with communities whose resources are largely intact and then move to more contentious areas

Impediments to model development:
• requires a realignment of power
• question of whether new bodies have advisory status or legislated power

Job of locally based bodies:
• contribute to cut calculations
• review management plans
• initiate local forest initiatives
• reach decisions that reflect community priorities and values
• give local form and meaning to "sustainability"

Group 3: did not reach agreement on a single option for public empowerment or one particular combination of options
Notes:
• most members favoured Option 18D with the addition of stakeholders, both local and those with an interest in the area
• Regional District representatives could perhaps be added to existing organizations
• additional layers of bureaucracy should be avoided
• need ongoing public involvement and greater education of participants and public

Option 19 - Public Appeal

Each group: chose a different combination of options or alternative option statement

Group 1: suggested an alternative statement involving three levels of appeal: 1) Forest Practices Board to apply fines and hear first level of appeals (mediation and negotiation); 2) a Tribunal separate from Board, to hear second level of appeals; and 3) the Courts, if no resolution at the other levels
Notes:
• Not just public appeal

• CORE may recommend Local Resource Boards with a different role than Forest Practices Boards
• Need to define the scope of appeals possible at each level
• All people should have the right of appeal
• Appeal process should be clear
• Decisions of Forest Practice Board should be "appealable"

Group 2: suggested a combination of administrative and Court appeals, with the addition of community-based boards prior to use of the Courts

Group 3: felt that Court appeals may already be available but the appeal procedure should minimize use of the Courts, the group suggested a combination of Options A, C and E, with the addition of a "Forest Ombudsman" to hear appeals

Notes:
• Should be part of the monitoring process

Option 20 - Timing

All groups: Preferred Option 20A, that development of the Code should be a priority

Recommendations:
• This is a priority among others, i.e. rate of cut, land use planning, inventories
• Should be a "considered" priority, don't rush into an unworkable Code
• CORE must take the lead in establishing land use planning procedures but at the earliest opportunity the Code and CORE recommendations should be integrated

Option 21 - Public Involvement

All groups: Preferred a combination of Option 21A and B, Stakeholder representation and Broad public discussions

Reasons:
• An open process is needed, shouldn't be hidden in the Ministry of Forests
• Both levels of involvement are needed because they are different audiences

Recommendations:
• Also need post-Code public involvement
• Need ongoing public involvement in development of the Code
• Need a selection process to ensure adequate representation of the community

Option 22 - A Living Code

All groups: Preferred Option 22A, with two groups also noting the need for periodic review (Option 22B)

Reasons:
- Process outlined by group 1 gives the Forest Practice Board the scope to respond to change
- Organization will adjust if the Code is positioned and working

Recommendations:
- State of the Environment reporting and legislative reviews are also important

APPENDIX 1

WORKSHOP SUMMARY - VANCOUVER - MAY 8-10, 1992			
3. FORMAT OF THE CODE			
3.1 Structural Elements	3.2 Functional Elements	3.2.2 Activity vs. Objectives Based	3.2.3 Results vs Process
Option 1A: Prescriptive Legislation **Option 1B: Enabling Legislation** Option 1C: Volunteer Compliance Alternative Statement of Preferred Option	**Option 2A: Single Code and IRM** Option 2B: IRM and Multiple Codes Option 2C: Single Code Emphasizing Timber Mgt. and Protection Alternative Statement of Preferred Option Group 3 preferred an alternative statement, start with developing a Code related to timber harvesting activities encompassing a whole forest approach and IRM, then broaden to address other forest use activities.	Option 3A: Activity based Code **Option 3B: Objectives based Code** Alternative Statement of Preferred Option	**Option 4A: Results oriented Code** Option 4B: Process oriented Code Alternative Statement of Preferred Option Group 1 preferred an alternative statement combing both options and a link with Option 3A
Reasons: •Code must allow for management flexibility and recognize local variations. •Volunteer compliance unrealistic in present atmosphere of lack of public trust in government and companies. •Prescriptive legislation is not responsive to change.	**Reasons:** •Need to address timber harvesting activities immediately as they are the most intrusive . •Option 2C is too narrow in focus and unacceptable to the public •Option 2B may not be workable and would accentuate conflict.	**Reasons:** •Management flexibility and public accountability are needed. •If the Code is to be lined to land use, then it mus be categorized by management objectives.	**Reasons:** •Need clarity for public process and flexibility for on the ground management. •Although processes important, results are the most important measure of success of the Code •Results can be measured and audited.

Recommendations: •legislative authority for Code must be clearly assigned. •Need checks and balances in legislation as well as flexibility, clear prescriptions should be detailed under the Code at a local level. •Relationship to existing regulations must be defined. °Principles should be prescribed in legislation •Legislation should decentralize decision making •Need flexible amendment process **Concerns:** •More clarity is needed for complete discussion of legislation, what is a Forest Practices Code and where does it fit relative to other legislation? •A combination of Options A and B may be needed.	**Recommendations:** •Full range of resource values should be considered, including spiritual. •Protection should be recognized as legitimate management option. •Address critical management areas first •Must be integrated with land use zones •Need to look at forest as a whole and keep an integrated focus	**Recommendation:** •Activities should fall under objectives, Option 3A should be a subset of 3B •Objectives for public involvement are needed. **Concerns:** •Grey area among all the choices in options 3 and 4, a combination of objectives, activities, processes and results are needed.	**Recommendation:** •Process used to accomplish results must also be included. **Concerns:** •Confusion over "process" and "public input" in options paper, what is a "result"? •May be difficult to measure results, i.e. ambient qualities many change, must check progress along the way.

WORKSHOP SUMMARY - VANCOUVER - MAY 8-10, 1992		
4. APPLICABLE LANDS		
4.1 Public Land	4.2 Private Land	4.3 Conversion to other Uses
Differentiate between roles of: A. Land Use Planning B. Forest Practices Code Groups felt that there is a continuum between the two. A Forest Practices Code provides direction on how to deliver what we decide we want in a land us plan. Group 1 saw land allocation as a CORE responsibility and a Forest Practices Code addressing forest management on designated land.	**Option 5A: All private forest land** Option 5B: Managed private forest land Alternative Statement of Preferred Option Groups also felt that the Code should apply to all public land (where zoning implies natural resource management) including federal land.	**Option 6A: Include conversion in code** **Option 6B: Apply only to forest management activities** **Alternative Statement of Preferred Option**
Reasons:	**Reasons:** •Existing problems with poor practices on private land and a need for control of forest management. •Forest production on private land is significant •Same rules should apply to everyone	**Reasons:** Group 1 preferred Option 6A, feeling that the Code should provide a process where conversion of forest lands to other uses may be considered. Group 2 preferred an alternative option statement which outlined three classifications of forest land:

	Recommendation: •A clear understanding of managed private forest land is needed (use the Assessment Act), the Code should apply to managed private forest land if timber production is the focus. •Incentives are needed for private land holders to comply with the Code, emphasis should be on incentives and the education of property holders. •Need bureaucratic simplicity, don not further burden the public with government administration costs.	1. Code applies to these lands in full 2. Only some categories of the Code apply 3. Code is applied when an established threshold is crossed (i.e. impact on other resource values) Group 3 preferred option 6B, feeling that Option 6B follows from their choice of 5A, the Code would apply to all "forest land" and conversion would be covered under the land classification system. **Recommendations:** •Remove disincentives to clearing of private forest land, objective of the Code should be to maintain private lands in forest use. •Make sure that the Code is not a further disincentive to maintaining land in forest. **Concerns:** •Conversion cannot be separated from private property rights.

WORKSHOP SUMMARY - VANCOUVER - MAY 8-10, 1992			
5. ADMINISTRATION			
5.1 Functions of Administration	Role of Audits	5.2 Administrative organizations	6.1 Incentives
Option 7A: MOF does the monitoring **Option 7B: Internal monitoring and external audit** Alternative Statement of Preferred Option Two groups preferred Option 7B, however, group 2 preferred a combination of A and B, reasoning that both parties should monitor to satisfy different requirements, the government to satisfy compliance with contracts and licensees to ensure efficient delivery by employees	Option 8A: Current audit arrangements Option 8B: New audit branch **Option 8C: Independent auditors** Alternative Statement of Preferred Option One group noted that there should also be a public reporting requirement. Group 2 also added Option 10C, stewardship performance bonds, to this option.	Option 9A: Status quo Option 9B: New public organizations Option 9C: Community forest resource boards Option 9D: Forest Practices Board Alternative Statement of Preferred Option	Option 10A: Marketing seal **Option 10B: Increased flexibility and efficiencies** **Option 10C: Increased security of tenure** Option 10D: Liability insurance Option 10E: Stewardship performance bonds Alternative Statement of Preferred Option All groups suggested a combination of B and C. Group 2 also suggested 10A. Group 3 felt that combinations of any other options were possible.
Reasons: •Monitoring is a government responsibility •Option B will build public trust and provide more credibility •Option B with internal and external monitoring	**Reasons:** •Need to establish credibility with the public. **Recommendations:** •Costs of auditing must be considered, could set up an audit fund to which all forest users contribute on some basis. •Need to define scope of audits, i.e. what is	**Reasons:** Group 1 recommended Options B and D, with two levels: 1) a Principal Forest Resource Boards; and 2) Local Boards Notes: •A "superministry" is supported by a Forest Resources Corporation is not •Local and regional input are needed	**Reasons:** •Incentives are needed to encourage performance above minimal Code requirements •Only real security for industry (Option 10C) is proprietorship, yet that is unpalatable to the public

recommendations: •The public should have a role in monitoring •Auditing must be independent to have credibility **Concerns:** •Must clarify what is being monitored •Some concern expressed over how often monitoring and audits are conducted.	being audited. •May need a "team approach" •Could be independent auditors certified by an administrative body •Audit both the responsible agency and licensee •Auditing should be combined with performance bonds. **Concerns;** •Who will pay? (must be equitable)	•Delegation of authority is an issue •Groups already exist at a local level and should be incorporated Group 2 was not happy with any of the choices named in the the options paper but felt that 9D could bring together all interest in applying and administering the Code while avoiding more bureaucracy. Group 3 felt that all options except B should be considered, as well as an alternative statement: •9A with independent audits to avoid creating new bureaucracies •9C to include people from local communities •9D with local participation as well •Alternative; decentralization of existing agencies to minimize bureaucracy and expense, while accommodating local needs and maintaining independence from political interference. **Concerns:** •Inappropriate to determine an administrative structure before clear roles and functions are determined.	**Recommendations:** •10A should be independent of government with some public input (not just a rubber stamp), group 3 viewed this as an essential incentive while group 1 felt that a marketing sel should be left to industry. •10B was view as important but contradictory, the addition of a Code will put an additional burden on efficiency. •10C is needed to encourage company stewardship, perhaps performance could affect security of tenure, security should be in the form of area-based, rather than volume based, tenures •10D was viewed as unworkable by group 1.

WORKSHOP SUMMARY - VANCOUVER - MAY 8-10, 1992			
6.2 PENALTIES			
6.2.1 Removal of Suspension of Licences	6.2.2 Fines	6.2.3 Imprisonment	6.3 Enforcement Climate
Option 11A: Automatic suspension or cancellation Option 11B: Technical suspension of licence Alternative Statement of Preferred Option	Option 12A: Administrative fines Option 12B: Court fines Alternative Statement of Preferred Option	Option 13A: Imprisonment Option 13B: Status quo Alternative Statement of Preferred Option	Option 14A: Enforcement is automatically applied **Option 14B: Independent body** **Alternative Statement of Preferred Option** Two group preferred alternative option statements and group 1 preferred option 14B.
All groups felt that the penalties should fit the offence and a range of options, including suspension of licences, fines and imprisonment, is needed, all groups also felt that positive reinforcement would be more effective in ensuring appropriate forest practices than relying primarily on penalties. **Recommendations:** •Option 11A, delete "automatic" and replace with discretionary, could also include a reduction in cut allowed, consider automatic suspension after repeat offences perhaps. •Government must be given the ability and clear direction to enforce the Code. **Group 1 Recommendations:** •A hierarchy of penalties geared to the significance of the infraction: 1) "Go in and fix it" 2) administrative fines and penalties (no prosecution)			**Group 1 Recommendations:** •Must define who recommends prosecution and who prosecutes •Enforcement of the Code should avoid clogging the courts •Need rights of appeal (forest Practices Board => Tribunal => Courts) •Define who can appeal enforcement decisions ensuring clear access to appeal by members of the public. •Need "whistleblower Protection" •Should be no statue of limitation on enforcement actions for area base tenures

3) Technical suspension 4) Imprisonment (concern: who is imprisoned?) 5) Suspension or cancelation of licence •Nee to consider remedial actions (i.e. mitigation or community service orders) as a penalty •Use fine revenues for local mitigation work •Board would make recommendations to the Attorney general and administer fines, Courts would decide in prosecution •Need ability to immediately stop work to enforce the Code •Long term liability and responsibility of companies must be addressed •Fines must match the severity of the infraction, the history of the offender and ability to pay. •Concern regarding long term or delayed impacts.	**Group 2 Recommendations:** •Empower line agencies to enforce at their discretion •Strengthen enforcement component of Acts and simplify mangers' ability to enforce them. **Group 3 Recommendations:** •Independent audit of the government agencies' enforcement of the Code •All forest users should be included

WORKSHOP SUMMARY - VANCOUVER - MAY 8-10, 1992			
7. TRAINING AND EDUCATION		8. PUBLIC INVOLVEMENT	
7.1 User Certification	7.2 Public Information	8.1 Public Audits	8.2 Public Empowerment
Option 15A: Mandatory certification **Option 15B: Voluntary certification** **Alternative Statement of Preferred Option** All groups felt that the degree of certification should reflect the degree of responsibility involved, groups differed in their recommended approach to achieving certification.	**Option 16A: Comprehensive code document** **Option 16B: Explanatory publication** Alternative Statement of Preferred Option	**Option 17A: Annual report** **Option 17B: Local public release of audits** Option 17C: Detailed and general reports Alternative Statement of Preferred Option All groups preferred a combination of both Option A and B.	Option 18A: Appointed advisory boards Option 18B: Elected management boards Option 18C: Use existing organizations Alternative Statement of Preferred Option Each chose a different combination of options or alternative option statement.
Reasons: Mandatory certification makes sure that training happens. **Recommendations:** •Education of all, certification of those who get dispositions or licenses •Training does not equal certification •Mandatory certification could be phased in with certain elements applying only to certain workers.	**Reasons:** •Both should be available and are needed to reach different audiences. **Recommendations:** •Should maximize public awareness and knowledge of the code. •Could circulate pamphlets (i.e. at all campsite entrances).	•Need all levels to meet different needs **Recommendations:** •Local public release of audits should not be "glossy" as referred to in the options paper •Difference between auditing and monitoring, avoid duplication •Should be opportunity for company or individual to review and modify actions prior to the release of audits. •Need definition of term "audit," is it meant in the same sense as financial audits?	**Reasons:** Group 1 preferred Option 18C, calling the tool Community Resource Boards, with the addition of an appointed Provincial Forest Practice Board Notes: •Boards should reflect range of stakeholder groups and be structured so as to avoid takeover by specific interest.

•Board could set standards which companies must then comply with •Consider the Swedish model **Concerns:** •How are different forest users trained? •Who will do the certifying and set up programs and examinations? Costs of certification •Do not want another level of bureaucracy		**Concerns:** •Significant costs to audits.	•Public empowerment structure should balance provincial and local interests, the relationship between the Provincial Forest Practices Board and Local Resource Boards needs to be defined. •Boards should be tied to the democratic system, possibly on the School Board model, with both elected and appointed members. •Ministries would be present on Boards but not as voting members. Group 2 chose to outline a separate "model for public empowerment" Attributes: •Must rationalize competing needs at local, regional, provincial, national and global levels. •Must consider competitiveness of industries. •Must satisfy community needs for empowerment, involvement and accountability in making local natural resource decisions. •Must give communities a financial stake in resource decisions. •decisions must be made within limits of sustainability

			•Need to define spheres of influence and relate to competitiveness. Ideas to create a model: •initiate pilot projects •start with communities whose resources are largely intact and then move to more contentious areas. Impediments to model development: •requires a realignment of power •question of whether new bodies have advisory status or legislated power Job of locally based bodies: •contribute to cut calculations •review management plans •initiate local forest initiatives •reach decisions that reflect community priorities and values •give local form and meaning to "sustainability" Group 3 did not reach agreement on a single option for public empowerment or one particular combination of options Note:

			•Most members favoured option 18D with the addition of stakeholders, both local and those with an interest in the are. •Regional District representatives could perhaps be added to exiting organization •Additional layers of bureaucracy should be avoided. •Need ongoing public involvement and greater education of participants and public.

WORKSHOP SUMMARY - VANCOUVER - MAY 8-10, 1992			
9. DEVELOPMENT PROCESS			
8.3 Public Appeal	9.1 Timing	9.2 Public Involvement	9.3 A Living Code
Option 19A: Administrative appeal Option 19B: Forced mediation Option 19C: Private judgement services Option 19D: Court appeal Option 19E: Ministerial Review Panel Alternative Statement of Preferred Option Each group chose a different combination of options or alternative option statement.	**Option 20A: Priority development** Option 20B: Non-priority development Alternative Statement of Preferred Option	**Option 21A: Stakeholder representation** **Option 21B: Broad public discussions** Alternative Statement of Preferred Option	**Option 22A: a learning organization** Option 22B: Periodic review Alternative Statement of Preferred Option 2 groups also noted the need for periodic review (Option 22B).
Reasons: Group 1 suggested an alternative statement involving three levels of appeal:1)Forest Practices Board to apply fines and hear first level of appeals (mediation and negotiation);2)a Tribunal separate from Board, to hear second level of appeals; and 3)the Courts, if no resolution at the other levels Notes: •Not just public appeal	**Reasons:** **Recommendations:** •This is a priority among others, i.e. rate of cut, land use planning, inventories •Should be a "considered" priority, do not rush into an unworkable Code •CORE must take the lead in establishing land use planning procedures but at the earliest opportunity the Code and CORE recommendations should be integrated	**Reasons:** •An open process is needed, shouldn't be hidden in the Ministry of Forests •Both levels of involvement are needed because they are different audiences., **Recommendations:** •Also need post-Code public involvement •Need ongoing public involvement in development of the Code •Need a selection process to ensure adequate representation of the community]	**Reasons:** •Process outlined by group 1 gives the Forest Practice Board the scope to respond to change •Organization will adjust if the Code is positioned and working **Recommendations:** •State of the Environment reporting and legislative reviews are also important.

•CORE may recommend Local Resource Boards with a different role than Forest Practices Boards •Need to define the scope of appeals possible at each level • All people should have the right of appeal •Appeal process should be clear •Decision of Forest Practice Board should be "appealable". Group 2 suggest a combination of administrative and Court appeals, with the addition of community-based boards prior to use of the Courts. Group 3 felt that Court appeals may already be available but the appeal procedure should minimize use of the Court, the group suggested a combination of Options A, C and E, with the addition of a "Forest Ombudsman" to hear appeals Notes: •Should be part of the monitoring process.			

APPENDIX 2

Vancouver Workshop Participants

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B. C. Forest Resources Commission

A Forest Practices Code

Summary of Public Workshop

Victoria, May 1-3, 1992

Prepared by:
Gayle Nelson
Chief Facilitator

for:
Salasan and Praxis

1.0 Introduction

This workshop is part of a series of workshops organized for the B.C. Forest Resources Commission to discuss the implications of and make recommendations for implementing a Forest Practices Code for British Columbia.

Thirty-one participants attended the workshop. The following commissioners were present: A. L.. (Sandy) Peel, Chairman, Dr. Roger Freeman and John Szauer (RPF).

The report discusses the various options and recommendations selected by the participants as well as some of the rationale for selecting the options.

A summary of the options and recommendations can be found in a matrix format in Appendix 1.

General Themes and Areas of Agreement

- Need for further discussion of public empowerment issues
- Need to keep in mind the costs of administration
- Public involvement at the level of management plans and in development of the code is needed
- Need to minimize bureaucracy
- Need for clear definitions of terms and concepts
- Code must provide consistency for all users and all values

Unresolved Issues

- Distinctions between land-use decisions and management issues, particularly at the local level
- Process for blending public involvement in land use and forest management

Objectives and Principles Discussion

Objectives

- Rewording of the objectives section is required.
- Need for consistent phraseology, that does not imply only timber uses of the forest (e.g. forest stewardship instead of forest practices).
- Clarification of key terms is required.
- The Code's relation to all forest uses and all forest users needs to be more specific.
- Objectives related to local control and public involvement need to be clarified and made more specific.
- Agreement that land allocation does not have to be complete for work on the Code to proceed.
- Although fairness and equability at the land allocation level are required, priorities should be set.
- The statements about biological and physiological capacity of the forest should be expanded into a broader ecosystem approach.
- Statements on universal applicability need to be balanced with consideration of site specific needs.
- Should include objectives related to proactive education and cooperation, as well as enforcement considerations.
- Need to define relation between CORE's role and mandate and the Forest Code.
- Administrative and jurisdictional consistency should be addressed in the objectives.

Principles

- **Principle # 1**
  Who establishes values and makes trade off's.
  Sustainability over what area and time period.

- **Principle #3**
  Should be expanded to accommodate alternative harvesting practices.
  Should deal with safety in forest resource management not just timber harvesting.

- **Principle # 4**
  Should be expanded to indicate the need for a fair economic return for the people of B.C.
  Decisions should be cost-effective.
  International competition may not be compatible with forest protection.
  The Code should not be used as a tool to encourage economic activity.

- **Principles # 5& 6** may be incompatible.

- **Principle # 6**
  Wording is inconsistent.
  Federal interests should be addressed.

- **Principle # 7**
  Rewards for superior practices should be added to encourage good forest stewardship.

- **Principle # 15**
  User must be defined.

- Relationships between the Code and CORE and between the Code and an industrial strategy need to be clarified and defined.

- Relationship between the Code and economic fluctuations should be defined.

- Inadequate public access to resource information is a problem that should be addressed by the Principles of the Code

- An open appeal process is needed.

- The importance of forest land to rural communities must be recognized by the Code.

- Code should account for the variety of values and positions within society.

Options and Summary of Participant Responses

3.1 Structural Elements

All groups: General agreement on Option 1B, Enabling Legislation – with indications that there should be a move toward prescriptive legislation on some issues.

Reasons:
- Flexibility to find processes, standards and rules that work is a critical factor in the initial development of the code
- Objectives can be established under enabling legislation and formalized later
- Allows flexibility to work with ecological criteria
- Possibility of moving from enabling to prescriptive as experience and practices evolve

Recommendations:
- Rules must be communicated clearly and results must be available to the public

Problems with option decision:
- Lack of general knowledge about legal ramifications of types of legislation
- Lack of definition and explanation of options

3.2 Functional Elements

All groups: 2A, Single Code with IRM, with an initial emphasis on timber management and protection to address public concerns

Reasons:
- Given that time frames may be a constraint, should set out the ideal of IRM and begin with the priority issue of timber harvesting and protection
- 2A reflects what public seems to be asking for.
- starting with elements of 2C would allow initial implementation through existing Forest Act
- 2B would not be practical or cost-effective

Recommendations:
- Need to maintain a focus on all values

Problems with option decision: N/A

3.2.2 Activity Vs Objectives Based

Group 1:
- **Alternative: Combination of 3A and 3B**

Reasons:
- Would allow improvement and refinement as learning takes place
- Related to the progression from enabling to prescriptive legislation

Group 2: 3A Activities based code.

Reasons:
- Activities should reflect objectives and principles

Group 3: 3B Objectives based code (combined with 3.2.3)

Reasons:
- Need objectives, then specified processes, then guides to activities and measurement.

Recommendations:

Problems with option decision:
- Overlap between 3.2.2 and 3.2.3

3.2.3 Results Vs Process

Group 1: 4A Results oriented Code

Group 2:
- **Alternative: Combination of 4A and 4B**

Reasons:
- should move from process-oriented to implementable.
- should be a regular review of results

Group 3:
- **Alternative: Combined with 3.2.2 above**

Reasons:
- Need objectives, then specified processes, then guides to activities and measurement.

Recommendations:
- Code should be results oriented with tools to control process where necessary
- A visible process that is results oriented and subject to audit is most desirable

Problems with option decision:
- Overlap between 3.2.2 and 3.2.3

4. APPLICABLE LAND

4.1 Public Land

All groups:
- Land use planning is needed to define the forest areas that will indicate the scope of the Code.

4.2 Private Land

All groups:
- Wide spread of opinion

Group 1: 5A, All private land
- **Addition:** Work toward inclusion of federal land in memorandum of agreement or other format.

Reasons:
- Should take special care in considering small holder interests.
- Requires administrative care.

Group 2: split 5A, 5B and
Alternative: Code should apply to land zoned as forest by CORE

Reasons:
- All lands inter-act and it is not clear how managed land or private land will be defined

Group 3:
- **Alternative:** Apply forest code to private land that has been designated as forest land

Reasons:
- Private settlement land should be covered by municipal government regulations

Recommendations:
- Code should be tested on public land before it is applied to private
- Code should apply to land claims areas so land is in good condition when Native groups assume control of it

Problems with option decision:
- Lack of clarity in definitions of land designations used in the summary before scope of the code can be settled.

4.3 Conversion to Other Uses

All Groups: Conversion is a land use issue

Recommendations:
- Issues concerning conversion of land to other uses should be dealt with by CORE
- Conversion decisions should be combined with environmental impact assessment
- If harvesting takes place it should be cross referenced to the Forest Practices Code

Problems with option decision:
- Confusion over presentation of the issue
- Difficult to see where the Code would fit at this level of planning / policy

5. ADMINISTRATION

5.1 Functions of Administration & Role of Audit

Group 1: Combination of 7A and 8C

Reasons:
- Monitoring must be balanced and checked by independent auditors

Group 2: Combination of 7A and 7B, with dissenting opinion that monitoring should be independent

Reasons:
- Auditing should be under auspices of Ministry of Environment
- Combining internal and MoF monitoring would provide an increased learning opportunity for the licensees.
- Monitoring is done to assess process and activities of harvesting, therefore licensees should be involved.

Group 3: 7B with elaboration's

Reasons:
- Monitoring is needed to catch problems in the field and apply immediate remedies
- Need independence for public credibility
- Costs are a critical consideration

Recommendations:
- Monitoring should be an interagency responsibility
- Need biological training for foresters
- Audits should be reported directly to legislature, not through Chief Forester
- Need to ensure clear terms of the Code to allow it to be monitored and audited effectively
- Avoid additional bureaucracy
- There is a need for appeal of decision / results of audits

Problems with option decision:
- Some people felt wording was confusing, e.g. audits must be independent by definition.
- Need to define who would be acting as auditors, professional foresters?, others ?

5.2 Administrative Organizations

Group 1: Undecided

Reasons:
- Community Boards could be advisors
- Possibility of Forest Stewardship Commission as alternative to Forest Practices Board

Group 2: 9D Forest Practices Board with some opinion for **9C Community Boards** under provincial regulations

Reasons:
- community Boards would provide vehicle for public involvement at a local level
- Forest Practices Board could be modeled on Agricultural Land Commission

Group 3: 9D Forest Practices Board

Reasons:
- 9B New public organizations and 9C Community Forest Resource Boards don't relate to the code.
- Community Resource Boards will be dealt with by CORE
- Competition between Ministries is a problem

Recommendations:
- Code should not depend on new complex organizations

Problems with option decision:
- Lack of information on potential structure and function of these bodies

6. INCENTIVES AND PENALTIES

6.1 Incentives

All groups:
- General agreement that incentives are necessary to promote objective of enhanced stewardship

Group 1: Favoured 10 B, Increased flexibility and efficiencies

Reasons:
- Allows licensees to develop their practices to an optimal level of excellence
- Monitoring and auditing assist in determining when incentives should be given

Group 2: Combination of 10 B, 10C and 10E

Reasons:
- these options provide the broadest scope
- security of tenure for area based tenure

Group 3: Combination of 10A, 10B and 10C

Reasons:
- Incentives reduce need for regulation
- Increased security of area based tenure is a good idea as it encourages good practices
- Concern over industry's short-term interests, and excessive transfer of rights

Recommendations:
- An increased share of timber resources to industry as a result of better management should not apply to other resources
- Need more focus on incentives, less on penalties

Problems with option decision:
- Security of tenure option should specify volume or area based

6.2. Penalties

All groups: General agreement that penalties should escalate with severity of infractions and degree of negligence or intentional abuse of stewardship roles

Group 1: Felt that an over-riding principle should apply to the penalty issue

Reasons:
- Penalties should be appropriate, effective, timely and remedial

Group 2: Favoured 11B and 12 A

Reasons:

Group 3: Consideration of all options

Reasons:
- Punishment should fit the crime

Recommendations:
- Remedial work should be considered as an option
- Fines should be substantial and not just a cost of business

Problems with option decision:
- Many of the options presented are already in existence and would not likely be altered by the instigation of a code.

6.3 Enforcement Climate

All groups: general agreement, not consensus **Combination of a modified 14A and 14B**

Reasons:
- enforcement should be carried out by a body that is credible and independent
- enforcement should not be allowed to become bogged down in bureaucracy or court filibusters

Recommendations:
- Authority to apply penalties should be assigned to the appropriate level of government

Problems with option decision: N/A

7. TRAINING AND EDUCATION

7.1 User Certification

All Groups:
Alternative: 15 A and 15 B modified and flexible enough to fit a variety of situations

Reasons:
• Could be a number of possible combinations of voluntary and mandatory certifications depending on activity.
• As the consequences of non-compliance increase, the need for certification increases

Recommendations:
• Mandatory or voluntary certification should depend on the risks involved and the accountability of the individual or licensee.

Problems with option decision:
• Vague wording regarding who users are

7.2 Public Information

All groups: Combination 16A and 16B

Reasons:
• Need the most comprehensive and flexible information system to meet a variety of requirements by different groups and individuals

Recommendations:
• Need for ongoing public information program and education in schools on issues related to all values of the forest

Problems with option decision: N/A

8. PUBLIC INVOLVEMENT

8.1 Public Audits

All groups: Combination of all Options

Reasons:
- Simple, straightforward reports are needed for wide public distribution
- Detailed reports could be made available on request

Recommendations:
- Independent auditors should report to legislature not MoF
- Address local needs in a regional context to develop consistency
- Develop a mechanism to allow people to access information to areas that are of particular concern
- Should be a minimum reporting requirement
- Need a screening process to decide who should be audited or else everyone should be audited

Problems with option decision:
- Need clarification on what is being audited

8.2 Public Empowerment

Group 1:
Alternative: Provincial Stewardship Commission with local appeal mechanism

Reasons:
- Provincial Commission would be small independent body
- Regional Resource Boards will handle land use issues
- Local appeal mechanism and regional resource boards could catch overlapping issues of land use and management

Groups 2 &3: 18C Combination Board

Reasons:
- Provides balance between local, regional and provincial interests

Recommendations:
- appointments should be made by elected officials or selected from elected bodies

Problems with option decision:
- Difficulty between separation of land use and Forest Practices Code
- Needs more public input and discussion
- Need for provincial standards

8.3 Public Appeal

All Groups: 19A Administrative Appeal (Group 1 stipulated preliminary local screening)

Reasons:
- Provides public accessibility
- Would allow local screening
- Less expensive to public than court appeal process

Recommendations:
- Develop mediation options that could take place prior to formal hearings
- Focus should be on audit results and good processes
- Need to exercise caution related to excessive appeals being launched
- Public appeal should be broader than court appeal if no solution is found
- A community review panel could screen appeals before they proceed to administrative level

Problems with option decision:
- Options presented are not discrete
- Option 19D should not be listed as it will always exist independent of the Code and is therefore not an option

9. DEVELOPMENT PROCESS

9.1 Timing

All groups: 20 A, Priority Development

Reasons:
- Public demand that forestry issues be dealt with in a consistent and accountable manner

Recommendations:
- Should be done in a step by step manner dealing with priority areas of concern first

Problems with option decision:
- Target date may be unrealistic

9.2 Public Involvement

Group 1:
Alternative: Advisory Board to Provincial Stewardship Commission

Reasons:
- provides local input combined with provincial overview and independence from Ministry and Industry interests and biases
- need ongoing mechanism for public input into Code

Groups 2 &3: Combination of 21A & 21B

Reasons:
- Provides a balance between public input and efficient decision-making
- Provides options to consider cost effectiveness of a number of decision-making and public involvement processes

Recommendations:

Problems with option decision: N/A

9.3 A Living Code

All groups: Combination of 22A and 22B

Reasons:
- Need to ensure that the Code is adaptable in relation to new knowledge and research
- Periodic reviews would highlight areas where change was necessary and facilitate the living code process

Recommendations:
- Public should be kept informed of changes and adaptations to the Code

Problems with option decision: N/A

APPENDIX 1

WORKSHOP SUMMARY - VICTORIA - MAY 2-3, 1992

3. FORMAT OF THE CODE

3.1 Structural Elements	3.2 Functional Elements	3.2.2 Activity vs. Objectives Based	3.2.3 Results vs Process
Option 1A: Prescriptive Legislation **Option 1B: Enabling Legislation** Option 1C: Volunteer Compliance Alternative Statement of Preferred Option	**Option 2A: Single Code and IRM** Option 2B: IRM and Multiple Codes Option 2C: Single Code Emphasizing Timber Mgt. and Protection Alternative Statement of Preferred Option with an initial emphasis on timber management and protection to address public concerns	Option 3A: Activity based Code Option 3B: Objectives based Code Alternative Statement of Preferred Option	Option 4A: Results oriented Code Option 4B: Process oriented Code Alternative Statement of Preferred Option
• Flexibility to find processes, standards and rules that work is a critical factor in the initial development of the code • Objectives can be established under enabling legislation and formalized later • Allows flexibility to work with ecological criteria • Possiblity of moving from enabling to prescriptive as experience and practices evolve **Recommendations:** • Rules must be communicated clearly and results must be available to the public	• Given that timeframes may be a constraint, should set out the ideal of IRM and begin with the priority issue of timber harvesting and protection • 2A reflects what public seems to be asking for. • starting with elements of 2C would allow initial implementation through existing Forest Act • 2B would not be practical or cost-effective **Recommendations:** • Need to maintain a focus on all values	**Group 1:** **• Alternative: Combination of 3A and 3B** • Would allow improvement and refinement as learning takes place • Related to the progression from enabling to prescriptive legislation **Group 2: 3A Activities based code.** **Reasons:** • Activities should reflect objectives and principles	**Group 1: 4A Results oriented Code** **Group 2:** **• Alternative: Combination of 4A and 4B** **Reasons:** • should move from process-oriented to implementable. • should be a regular review of results **Group 3:** **• Alternative: Combined with 3.2.2 above**

WORKSHOP SUMMARY - VICTORIA - MAY 2-3, 1992

4. APPLICABLE LANDS

4.1 Public Land	4.2 Private Land	4.3 Conversion to other Uses
Differentiate between roles of: A. Land Use Planning B. Forest Practices Code **All groups:** • Land use planning is needed to define the forest areas that will indicate the scope of the Code.	Option 5A: All private forest land Option 5B: Managed private forest land Alternative Statement of Preferred Option **All groups:** • Wide spread of opinion	Option 6A: Include conversion in code Option 6B: Apply only to forest management activities Alternative Statement of Preferred Option **All Groups:** Conversion is a land use issue
	Group 1: 5A, All private land • **Addtion:** Work toward inclusion of federal land in memorandum of agreement or other format. **Reasons:** • Should take special care in considering smallholder interests. • Requires administrative care. **Group 2: split 5A, 5B and** **Alternative:** Code should apply to land zoned as forest by CORE	**Recommendations:** • Issues concerning conversion of land to other uses should be dealt with by CORE • Conversion decisions should be combined with environmental impact assessment • If harvesting takes place it should be cross referenced to the Forest Practices Code **Problems with option decision:** • Confusion over presentation of the issue • Difficult to see where the Code would fit at this level of planning / policy

	Reasons: • All lands inter-act and it is not clear how managed land or private land will be defined **Group 3:** • **Alternative:** Apply forest code to private land that has been designated as forest land **Reasons:** • Private settlement land should be covered by municipal government regulations **Recommendations:** • Code should be tested on public land before it is applied to private • Code should apply to land claims areas so land is in good condition when Native groups assume control of it **Problems with option decision:** • Lack of clarity in definitions of land designations used in the summary before scope of the code can be settled.	

WORKSHOP SUMMARY - VICTORIA - MAY 2-3, 1992

5. ADMINISTRATION

5.1 Functions of Administration	Role of Audits	5.2 Administrative organizations	6.1 Incentives
Option 7A: MOF does the monitoring Option 7B: Internal monitoring and external audit Alternative Statement of Preferred Option	Option 8A: Current audit arrangements Option 8B: New audit branch Option 8C: Independent auditors Alternative Statement of Preferred Option	Option 9A: Status quo Option 9B: New public organizations Option 9C: Community forest resource boards Option 9D: Forest Practices Board Alternative Statement of Preferred Option	Option 10A: Marketing seal Option 10B: Increased flexibility and efficiencies Option 10C: Increased security of tenure Option 10D: Liability insurance Option 10E: Stewardship performance bonds Alternative Statement of Preferred Option **All groups:** • General aggreement that incentives are necessary to promote objective of enhanced stewardship
Group 1: Combination of 7A and 8C **Reasons:** • Monitoring must be balanced and checked by independent auditors **Group 2: Combination of 7A and 7B,** with dissenting opinion that monitoring should be independent **Reasons:** • Auditing should be under auspices of Min of Environment • Combining internal and MoF monitoring would provide an increased learning opportunity for the licensees. • Monitoring is done to assess process and activities of harvesting, therefore licensees should be involved.		**Group 1: Undecided** **Reasons:** • Community Boards could be advisors • Possibility of Forest Stewardship Commission as alternative to Forest Practices Board **Group 2: 9D Forest Practices Board** with some opinion for **9C Community Boards** under provincial regulations	**Group 1: Favoured 10 B, Increased flexibilty and efficiencies** **Reasons:** • Allows licensees to develop their practices to an optimal level of excellence • Monitoring and auditing assist in determining when incentives should be given

Group 3: 7B with elaborations

Reasons:
- Monitoring is needed to catch problems in the field and apply immediate remedies
- Need independence for public credibility
- Costs are a critical consideration

Recommendations:
- Monitoring should be and interagency responsibility
- Need biological training for foresters
- Audits should be reported directly to legislature, not through Chief Forester
- Need to ensure clear terms of the Code to allow it to be monitored and audited effectively
- Avoid additional bureaucracy
- There is a need for appeal of decision / results of audits

Problems with option decision:
- Some people felt wording was confusing, e.g. audits must be independent by definition.
- Need to define who would be acting as auditors, professional foresters?, others ?

Reasons:
- community Boards would provide vehicle for public involvement at a local level
- Forest Practices Board could be modelled on Agricultural Land Commission

Group 3: 9D Forest Practices Board

Reasons:
- 9B New public organizaitons and 9C Community forest Resource boards don't relate to the code.
- Community Resource Boards will be dealt with by CORE
- Competition between Ministries is a problem

Recommendations:
- Code should not depend on new complex organizations

Problems with option decision:
- Lack of information on potential structure and function of these bodies

Group 2: Combination of 10 B, 10C and 10E

Reasons:
- these options provide the broadest scope for
- security of tenure for area based tenure

Group 3: Combination of 10A, 10B and 10C

Reasons:
- Incentives reduce need for regulation
- Increased security of area based tenure is a good idea as it encourages good practices
- Concern over industry's short-term interests, and excessive tranfer of rights

Recommendations:
- An increased share of timber resources to industry as a result of better management should not apply to other resources
- Need more focus on incentives, less on penalties

Problems with option decision:
- Security of tenure option should specify volume or area based

WORKSHOP SUMMARY - VICTORIA - MAY 2-3, 1992

6.2 PENALTIES

6.2.1 Removal of Suspension of Licences	6.2.2 Fines	6.2.3 Imprisonment	6.3 Enforcement Climate
Option 11A: Automatic suspension or cancellation Option 11B: Technical suspension of licence Alternative Statement of Preferred Option **All groups:** General agreement that penalties should escalate with severity of infractions and degree of negligence or intentional abuse of stewardship roles	Option 12A: Administrative fines Option 12B: Court fines Alternative Statement of Preferred Option	Option 13A: Imprisonment Option 13B: Status quo Alternative Statement of Preferred Option	Option 14A: Enforcement is automatically applied Option 14B: Independent body **Alternative Statement of Preferred Option** **All groups:** general agreement, not consensus **Combination of a modified 14A and 14B**
Group 1: Felt that an over-riding principle should apply to the penalty issue **Reasons:** • Penalties should be appropriate, effective, timely and remedial **Group 2: Favoured 11B and 12 A** **Reasons:** **Group 3: Consideration of all options** **Reasons:** • Punishment should fit the crime		Reasons:	**Reasons:** • enforcement should be carried out by a body that is credible and independant • enforcement should not be allowed to become bogged down in bureaucracy or court filibusters **Recommendations:** • Authority to apply penalties should be assigned to the appropriate level of government

Recommendations: • Remedial work should be considered as an option • Fines should be substantial and not just a cost of business **Problems with option decision:** • Many of the options presented are already in existence and would not likely be altered by the instigation of a code.		

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7. TRAINING AND EDUCATION		8. PUBLIC INVOLVEMENT	
7.1 User Certification	7.2 Public Information	8.1 Public Audits	8.2 Public Empowerment
Option 15A: Mandatory certification Option 15B: Voluntary certification **Alternative Statement of Preferred Option** **All Groups:** **Alternative: 15 A and 15 B** modified and flexible enough to fit a variety of situations	Option 16A: Comprehensive code document Option 16B: Explanatory publication **Alternative Statement of Preferred Option**	Option 17A: Annual report Option 17B: Local public release of audits Option 17C: Detailed and general reports **Alternative Statement of Preferred Option**	Option 18A: Appointed advisory boards Option 18B: Elected management boards Option 18C: Use existing organizations Alternative Statement of Preferred Option
Reasons: • Could be a number of possible combinations of voluntary and mandatory certifications depending on activity. • As the consequences of non-compliance increase, the need for certification increases **Recommendations:** • Mandatory or voluntary certification should depend on the risks involved and the accountability of the individual or licensee. **Problems with option decision:** • Vague wording regarding who users are	**Reasons:** • Need the most comprehensive and flexible information system to meet a variety of requirements by different groups and individuals **Recommendations:** • Need for ongoing public information program and education in schools on issues related to all values of the forest	**Reasons:** • Simple, straightforward reports are needed for wide public distribution • Detailed reports could be made available on request **Recommendations:** • Independant auditors should report to legislature not MoF • Address local needs in a regional context to develop consistency • Develop a mechanism to allow people to access informatin to areas that are of particular concern	**Group 1:** **Alternative: Provincial Stewardship Commission with local appeal mechanism** **Reasons:** • Provincial Commission would be small independant body • Regional Resource Boards will handle land use issues • Local appeal mechanism and regional resource boards could catch overlapping issues of land use and management **Groups 2 &3: 18C Combination Board**

		• Should be a minimum reporting requirement • Need a screening process to decide who shoul dbe audited or else everyone should be audited **Problems with option decision:** • Need clarification on what is being audited	**Reasons:** • Provides balance between local, regional and provincial interests **Recommendations:** • appointments should be made by elected officials or selected from elected bodies **Problems with option decision:** • Difficulty between separation of land use and Forest Practices Code • Needs more public input and discussion • Need for provincial standards

WORKSHOP SUMMARY - VICTORIA - MAY 2-3, 1992

9. DEVELOPMENT PROCESS

8.3 Public Appeal	9.1 Timing	9.2 Public Involvement	9.3 A Living Code
Option 19A: Administrative appeal Option 19B: Forced mediation Option 19C: Private judgement services Option 19D: Court appeal Option 19E: Ministerial Review Panel Alternative Statement of Preferred Option	**Option 20A: Priority development** Option 20B: Non-priority development Alternative Statement of Preferred Option	Option 21A: Stakeholder representation Option 21B: Broad public discussions Alternative Statement of Preferred Option	Option 22A: a learning organization Option 22B: Periodic review Alternative Statement of Preferred Option **All groups: Combination of 22A and 22B**
Reasons: • Provides public accessibility • Would allow local screening • Less expensive to public than court appeal process **Recommendations:** • Develop mediation options that could take place prior to formal hearings • Focus should be on audit results and good processes • Need to exercise caution related to excesive appeals being launched	**Reasons:** • Public demand that forestry issues be dealt with in a consistent and accountable manner **Recommendations:** • Should be done in a step by step manner dealing with priority areas of concern first **Problems with option decision:** • Target date may be unrealistic	**Group 1:** **Alternative: Advisory Board to Provincial Stewardship Commission** **Reasons:** • provides local input combined with provincial overview and independance from Ministry and Industry interests and biases • need ongoing mechanism for public input into Code **Groups 2 &3: Combination of 21A & 21B**	**Reasons:** • Need to ensure that the Code is adaptable in relation to new knowledge and research • Periodic reviews would highlight areas where change was necessary and facilitate the living code proces **Recommendations:** • Public should be kept informed of changes and adaptations to the Code

• Public appeal should be broader than court appeal if no solution is found • A community review panel could screen appeals before they proceed to administrative level **Problems with option decision:** • Options presented are not discreet • Option 19D should not be listed as it will always exist independant of the Code and is therefore not an option		**Reasons:** • Provides a balance between public input and efficient decision-making • Provides options to consider cost effectiveness of a number of decision-making and public involvement processes	

APPENDIX 2

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A Catalogue of

Forest Practice Guidelines and Regulations

in British Columbia

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April 1992

Acknowledgements

We would like to extend our appreciation to the following individuals who assisted us in researching this catalogue...

Phil Zacharatos
Bob Richards
Ken Bishop
Ken Burnett
Keith Mooney
Brian Atherton
Janice Bianco
Paul Hanna
Laverne Merkel
Ted nash
Gerry Kennah
Doug Herchmer
Pat English
Silvi Holmsen
Diane Matis
Richard Grieve
Chris Hayhurst
Ken Matthews
Dennis Bendickson
J. Hackett
Rick Smith
Evelyn Hamilton
Fred Thiessen
Dave Toews
Rick Baker
Tom Volkers
Murray Houlind
Jane Perry
Dave Peterson
Ross Fredell
Barb Pryce
Michael Brownlee

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Introduction

This catalogue is a list of all documents presented to the authors as having a significant influence on forest management in the field. It does not include guidelines and regulations that are directed at the administration of various licensing agreements or intra- and interagency referral.

The process for developing the catalogue consisted of bibliography and literature reviews, and liaison with Ministry of Forests branch staff, followed by interviews conducted both in the field and by phone. Virtually all of the entries in the catalogue were provided by line staff directly involved in managing resources on a daily basis.

Most of the contacts who provided materials and advice reflected in this catalogue are employees of the Ministry of Forests. However, many of the significant initiatives that have produced operational management guidelines have included the active participation of other government agencies, the private sector and the public. The Okanagan TSA Integrated Resource Management Timber Harvesting Guidelines is a recent example.

The catalogue is representative of the guiding documents used to manage Crown forest land across the province. Circulars and Standard Operating Procedures from specific regions and districts have been included to illustrate the type of direction available at each management level.

Each catalogue entry has been categorized with regard for the resources addressed and the type of information it provides. Category headings were determined on the basis of "fields of practice" rather than by academic discipline. Consequently, research information is listed under those headings for which it has most value to the practitioner.

Finally, it is apparent that most documents can, in some way, be considered a guideline or directive. The authors have used a single measure to determine if a document should be included. That is, will its implementation directly result in any modification to the land base.

Timber Management

Guidelines

An Ecological Approach to Organizing Forests for Woodlot Management; Courbin, P.J.; Green, R.N.; Shishkov, G.; Land Management Report No. 58; Ministry of Forests; 1989

Cranbrook Forest District Riparian Management Guidelines; Draft; Ministry of Forests

Christmas Trees; Standard Operating Procedure No. 18 - 1; Prince George Forest Region; Ministry of Forests; December 1983

Developing Timber Harvesting Prescriptions to Minimize Site Degradation - Interior Sites; Lewis, T.; Carr, W.; Field Guide Insert No. 1; Ministry of Forests; 1989

Draft Field Guide for the Prediction and Management of Windthrow and Suggested Guidelines for Edge-feathering; Ministry of Forests, LUPAT, MacMillan Bloedel Ltd.; September 1991

Factors Contributing to Blowdown in Streamside Leave Strips on Vancouver Island; Land Management Report No. 3; Ministry of Forests 1977

Guidelines for Harvesting Sensitive Slopes; Standard Operating Procedure No. 4 - 2; Prince George Forest Region; Ministry of Forests; April 1983

Guidelines for Logging Activities Adjacent to B.C. Hydro Transmission Lines; Vancouver Circular VR 89-529; Vancouver Forest Region; Ministry of Forests; May 1989

How to Manage Your Woodlot for Firewood Production and Sales; Pacific Forestry Centre; 1991

- *a handbook on conducting a forest inventory of your property, followed by advice on developing goals, objectives and a management plan for the business*

Identifying and Managing Windthrow - Prone Timber, Prince George Forest Region; Walker, K.; Ministry of Forests; January 1982

- *notes for discussion to result in the development of guidelines*

Implementation Details for the IHG; Kispiox Forest District; Ministry of Forests

- *describes licensee responsibilities for public consultation, co-ordination of activities, old growth reserves, clearcut equivalency calculations, riparian zones management, landscape mapping, trail identification and maintenance, sediment control, block size limitations, use of new forestry, annual reporting.*

Interim Harvesting Guidelines (Soil Disturbance); Standard Operating Procedure No. 34 - 1; Nelson Forest Region; Ministry of Forests; August 1989

Interim Harvesting Guidelines; Standard Operating Procedure No. 4 - 2.1; Prince George Forest Region; Ministry of Forests; July 1991

Interim Policy on Utilization of Economically Marginal Value Timber; Nelson Forest Region Circular; Ministry of Forests; September 1985

Interim Regional Timber Harvesting Guidelines for the Interior Portion of the Prince Rupert Forest Region - Draft, Version II; Ministry of Forests; March 1992

- *Describes guidelines for planning, inventory, recreation roads, harvesting, site preparation, regeneration, vegetation management, and riparian areas*

Kamloops Forest Region Integrated Resource Management Timber Harvesting Guidelines; April 1991

Landing Administration Guidelines; Standard Operating Procedure No. 11 - Tim.; Cranbrook Forest District; Ministry of Forests; April 1989

Nelson Cruising Guidelines; Nelson Forest Region; Ministry of Forests; September 1991

Okanagan Timber Supply Area Integrated Resource Management Timber Harvesting Guidelines; Okanagan TSA; March 1991

Personal Use Firewood Cutting; Standard Operating Procedure No. 17 - 1; Prince George Forest Region; Ministry of Forests; July 1983

Policy Statement on Utilization Agreements Issued for Cutting and Removing Timber; Ministry of Forests; June 1987

- *prescribes minimum utilization standards for all licences entered into under the Forest Act*

Prince George Forest Region Harvest Planning Guidelines; April 1991

Priority Cutting Ages; Standard Operating Procedure No. 3 - 1; Prince George Forest Region; Ministry of Forests; July 1990

Procedures for Marking Timber in the Prince George Forest Region; Ministry of Forests; July 1991

Procedures for Seizing Unmarked Timber; Standard Operating Procedure No. 23 - 6; Prince George Forest Region; Ministry of Forests; December 1991

Provincial Harvesting Guidelines for the Management and Maintenance of Wildlife Trees, Draft; Ministry of Environment, Lands and Parks; March 1992

Regional Harvesting Guidelines in the Cariboo Forest Region

Regional Harvesting Guidelines, Prince Rupert Forest Region; March 1991

Report of the Nelson Regional Committee on Clearcutting and Harvesting Guidelines; April 1991

Salvage, Cruising, Silviculture and Administration of Small Pockets of Mountain Pine Beetle (MPB) Killed Timber and Windthrow; Standard Operating Procedure No. 9 - Tim.; Cranbrook Forest District; Ministry of Forests; October 1991

Streamside Management - A Decision-Making Procedure for South Coastal British Columbia; Land Management Handbook No. 1, Revised 2nd Edition; Ministry of Forests; Sept. 1980

- *a site specific guide to the management of streamsides on Vancouver Island and South Coastal British Columbia for which logging is proposed*

Summary and Analysis of Ministry of Forests Regional Harvesting Guidelines; Zielke, K.; July, 1991

- *addresses: maximum clearcut size; restrictions on clearcut dimensions; reserve width between cutblocks; rate, distribution and sequence of harvest; green-up criteria; determination of visual quality objectives; achievement of VQOs; encouragement of "non-clearcut" silvicultural systems; road construction and maintenance; road and landing ratios; rehabilitation of landings and skidroads; maintenance of soil integrity; reforestation; activities in riparian habitat; maintenance of fish habitat; maintenance of big game habitat; biodiversity; compliance.*

TSL (Minor) Reconnaissance Report; Standard Operating Procedure No. 11 - 11; Prince George Forest Region; Ministry of Forests; May 1983

Updated Guidelines for Five Year Development Plans, Cutting Permit Applications and Logging Plans; Vancouver Forest Region; February 1991

Utilization Standards; Standard Operating Procedure No. 35 - 1; Prince George Forest Region; Ministry of Forests; July 1990

Vancouver Forest Region Coastal Planning Guidelines; April 1991

Vancouver Forest District Residual Falling Policy; Vancouver District Circular; Ministry of Forests; August 1978

Regulations

Christmas Tree Regulation; BC REG 013/84
This regulation deals with the issuance of a Christmas tree permit. It describes who can apply for a permit and the form of application. It provides for replacement of the permit and limits a person to holding only one permit.

Log Salvage Regulation; BC REG 220/81
This regulation governs the log salvage industry.
The regulation:

1. *requires salvage of logs to be done only by permitted people*
2. *sets out the means, and qualifications necessary, to grant a log salvage permit*
3. *determines rights of ownership, delivery and disposal of salvaged logs*
4. *describes the duties of receiving stations to receive, and permittees to deliver, salvaged logs*

Penalties for the Destruction and Damage of Young and Immature Trees Regulation; BC REG 561/78
This regulation sets out the penalty for damaging young and immature trees according to the area of forest type damaged or destroyed.

Scaling Regulation; BC REG 563/78
This regulation deals with the measuring of the volume and value of trees harvested from the provincial forest.
The regulation:

1. *describes the scaling procedures/methods to determine the volume of a log*
2. *provides for audits of scales by means of a check scale*
3. *sets out the fees payable for a scale*
4. *provides for a second scale and determines when the results of the second scale override the first*
5. *sets out the marking and other requirements to be followed when transporting timber*
6. *sets out the categories of log grades to determine log quality*

Timber Marking Regulation; BC REG 567/78
This regulation requires a timber mark or marine log brand to be hammer indented on each end of each piece of timber moved.

Manuals

Cruising Manual; Ministry of Forests

Chapter 1	Introduction
Chapter 2	Cruise Design *-cruise objective, types of cruise, sampling errors, plot size and shape, statistics concepts, stratification, double sampling*
Chapter 3	Field Procedures *-systematic sampling, establishment of fixed size plots, establishment of variable (prism) plots, plot measurements, quality remarks, damage codes, sample trees for age and height, check cruising, calculated standards*
Chapter 4	Cruise Compilation Procedures *-input, compilation program, volume compilation, log quality, computer compilation output*
Chapter 5	Cruise Analysis *-calculation and interpretation of sampling error and coefficient of variation*
Chapter 6	Ministry of Forest Cruise Tally Sheet *-form design, entry of data*
Chapter 7	Ministry of Forests Map Area Statement *-cruise identity, compilation standard, type description, block description, height/dbh description, harvesting method description*

Appendix 1	Site Index and Age Correction Tables
Appendix 2	Christen's Hypsometer
Appendix 3	Isogonic - Isoporic Chart
Appendix 4	Key Map to Forest Inventory Zones
Appendix 5	Pathological Classification of Trees
Appendix 6	Guidelines (FS 205) Ground and Stand Conditions
Appendix 7	Woods Safety and Emergency Procedure
Appendix 8	Abbreviations and Symbols
Appendix 9	Damaged Stands
Appendix 10	Logging Productivity Index Check Form

Timber Management Manual; Ministry of Forests

Chapter 1	The Legislative Base
Chapter 2	Timber Agreement and Land Tenure, Map Reserves, and Map Notations
Chapter 3	Resource Analysis, Resource Program, Annual Report and Annual Budget
Chapter 4	Resource Programs - Timber Management
Chapter 5	Resource Program Apportionment *-policy and procedures for apportionment*
Chapter 6	Resource Program - Agreement - Forest Licence (New) and Timber Sale Licence (New)
Chapter 7	Resource Program - Agreement - Replacement Forest Licence *-administrative procedures and policies for replacing TSHLs and TSLs with Forest Licences*
Chapter 8	Resource Program - Agreement - Tree Farm Licence (New) *-administrative procedures for Tree Farm Licence agreements*
Chapter 9	Resource Program - Agreement - TFL Replacement *-procedures for replacement of Tree Farm Licences under Sections 29 and 33 of the Forest Act*
Chapter 10	Resource Program - Agreement - Replacement TSL (Major) *-procedures for obtaining a new or replacement TSL (Major)*
Chapter 11	Resource Program - Agreement - TSL (Minor) *-Timber Sale Licence Administration Part 1: TSL applications, TSL Clearance, cruises for disposal of Crown timber, cruise report, TSL appraisal administration, TSL advertising*
Chapter 12	Resource Program - Agreement - TSL (Minor) *-Timber Sale Licence Administration Part 2*

Chapter 13	Resource Program - Agreement - WL (New) and FWL Replacement *-administrative procedures for Woodlot Licences and replacing Forest Woodlot Licences*
Chapter 14	Resource Program - Agreement - Licence to Cut and Stumpage Reservations *-administrative procedures for Licences to Cut and Stumpage Reservations*
Chapter 15	Resource Program - Agreement - Right-of-Way - Road Permits
Chapter 16	Resource Program - Agreement - Timber Licence *-administrative procedures for timber berths, leases and licences*
Chapter 17	Resource Program - Agreement - Free Use Permit *-administrative procedures for Free Use Permits*
Chapter 18	Resource Program - Agreement - Christmas Tree Permit *-administrative procedures for Christmas Tree Permits*
Chapter 19	Resource Program - Agreement - Pulpwood Agreements
Chapter 20	Resource Program - Small Business Enterprise *-administrative procedures for the Small Business Forest Enterprise Program*
Chapter 21	Resource Program - TSA, PSYU, Cut Control *-administrative procedures for cut control*
Chapter 22	Resource Program - Transfer, Assignments *-guidelines for processing assignments, amalgamations and share transfers as per Section 50 of the Forest Act*
Chapter 23	Resource Program - General - Timber Marking - Crown and Private *-administrative procedures for timber marks*
Chapter 24	Resource Program - General - Timber Trespass *-administrative procedures for taking action on timber pursuant to the Forest Act*
Chapter 25, 26	Resource Program - General - Provincial Forests - Special Use Permits *-miscellaneous land status issues in Chapter 25; Chapter 26 in the manual was empty*
Chapter 27	Resource Program - General - Firewood and Special Forest Products
Chapter 28	Resource Program - General - Status and Mapping *-administrative procedures for mapping, status, and clearance of forest and non-forest tenures within Provincial Forests*
Chapter 29	Resource Program - General - Tree Farms

Chapter 30	Resource Program - General - Mineral Claims *-administrative procedures for issuing FUPs, Licences to Cut, and TSLs on Mineral Claims*
Chapter 31	Resource Program - General - Timber on Placer Leases, and on Coal, Petroleum and Natural Gas Licences, Leases and Permits *-administrative procedures for issuing FUPs, Licences to Cut, Cutting Permits, and TSLs on placer leases and on coal, petroleum and natural gas licences, leases and permits*
Chapter 32	Resource Program - General - Ministry of Transportation and Highways, Hydro Lines - Timber *-administrative procedures for allowing the removal of timber from highway right-of-ways and hydro line right-of-ways*
Chapter 33	Resource Program - General - Committees - Logging Contractor Clause Advisory Committee
Chapter 34	Resource Program - General - Contract Administration (ie. Contractor Clause, Chip Direction, Waste Assessment, Security Deposits and Performance Bonds, Suspension/ Cancellation, Interpretation and Administration notes on each Tenure)
Chapter 35	Resource Program - General - Utilization *-utilization standards and procedures*
Chapter 36	Resource Program - General - Mill Licence *-administrative procedures for Mill Licences*

Scaling Manual; Ministry of Forests

Chapter 1	Scaling Legislation
Chapter 2	Measurements
Chapter 3	Classifications of Timber Marks
Chapter 4	Classification of Species
Chapter 5	Classifications of Grades
Chapter 6	Classifications of Special Forest Products
Chapter 7	Weight Scaling Technical
Chapter 8	Forms and Procedures
Chapter 9	Administration

Silviculture

Guidelines

Aerial Herbicide Application Project Manager Duties; Standard Operating Procedure No. 12 - 1; Prince George Forest Region; Ministry of Forests; May 1986

Aerial Spraying of Herbicides; Vancouver Circular Letter VR 84-453; Ministry of Forests; May 1984

Big May Not Be Beautiful: Tree Species Performance in High Elevation Coastal Plantations; Ministry of Forests; 1990

Black Cottonwood - A Nurse Species for Regenerating Western Redcedar on Brushy Sites; McLennan, D.S.; Klinka, K.; FRDA Report No. 114; Ministry of Forests, Forestry Canada; 1990

The Challenges of Regenerating Sites in the Cedar-Hemlock Zone of the Southern Interior of B.C.; Operational Summary; MacDonald, D.; FRDA Memo No. 136; Ministry of Forests, Forestry Canada; 1990

Classification and Interpretation of Some Ecosystems of the Rocky Mountain Trench, Prince George Forest Region, British Columbia - First Approximation; Meidinger, D.V.; Hope, G.D.; McLeod, A.J.; Land Management Report No. 22; Ministry of Forests; 1984

Conifer Seedling Physiology and Response to Plantation Environment; Hawkins, C.; Lousier, J.D.; FRDA Memo No. 135; Ministry of Forests, Forestry Canada; 1990

Correlated Guidelines for Free Growing Stocking Standards; Ministry of Forests; January 1990

- *prescribes free growing stocking standards based on correlated ecosystem descriptions, moisture and nutrient regimes and site capabilities*

Ecology Silvics and Management of Black Cottonwood, Red Alder, Bigleaf Maple and Paper Birch in Coastal British Columbia: Operational Summary; McLennan, D.S.; FRDA Memo No. 133; Ministry of Forests, Forestry Canada; 1990

Ecosystem Classification and Interpretation of the Sub-Boreal Spruce Zone, Prince Rupert Forest Region, British Columbia; Pojar, J.; Trowbridge, R.; Coates, D.; Land Management Report No. 17; Ministry of Forests; 1984

Ecosystems of British Columbia; Meidinger, D.; Pojar, J.; Special Report Series No. 6; Ministry of Forests; 1991

Fertilization Guidelines; Standard Operating Procedure No. 9 - 1; Prince George Forest Region; Ministry of Forests; March 1987

A Field Guide for Identification and Interpretation of Ecosystems of the Cariboo Forest Region; Ministry of Forests; 1987

A Field Guide for Identification and Interpretation of Ecosystems in the Nelson Forest Region, 2nd Edition; Utzig, G.; Comeau, P.; MacDonald, D.; Ketcheson, M; Braumandal, T.; Warner, A.; Still, G.; Land Management Handbook No. 20; Ministry of Forests; 1986

A Field Guide for Identification and Interpretation of Ecosystems of the Northeast Portion of the Prince George Forest Region; MacKinnon, A.; DeLong, C.; Jang, L.; Land Management Handbook No. 22; Ministry of Forests; 1990

A Field Guide for Identification and Interpretation of Ecosystems of the Northwest Portion of the Prince George Forest Region; MacKinnon, A.; DeLong, C.; Meidinger, D.; Land Management Handbook No. 21; Ministry of Forests; 1990

A Field Guide for Identification and Interpretation of Ecosystems of the Rocky Mountain Trench, Prince George Forest Region; Meidinger, D.; McLeod, A.; Mackinnon, A.; DeLong, C.; Hope, G.; Land Management Handbook No. 15; Ministry of Forests; 1988

Field Guide for Identification and Interpretation of Seral Aspen Ecosystems of the BWBScl Prince George Forest Region; DeLong, C.; Land Management Handbook No. 16; Ministry of Forests; 1978

A Field Guide for Identification and Interpretation of the Coastal Western Hemlock Zone, Northern Drier Maritime Subzone (CWHf), in the Prince Rupert Forest Region; Standish, J.T.; Haeussler, S.; Kokoshke, A.; Pojar, J.; Holmes, D.; Geisler, B.M.; Yole, D.; Land Management Handbook No. 14; Ministry of Forests; 1987

A Field Guide for Identification and Interpretation of the Engelmann Spruce-Subalpine Fir Zone in the Prince Rupert Forest Region; Yole, D.; Lewis, T.; Inselberg, A.; Pojar, J.; Holmes, D.; Land Management Handbook No. 17; Ministry of Forests; 1989

A Field Guide for Identification and Interpretation of the Interior Cedar-Hemlock Zone, Northwestern Transitional Subzone (ICHg), in the Prince Rupert Forest Region; Housekenecht, S.; Haeussler, S.; Kokoshke, A.; Pojar, J.; Holmes, D.; Geisler, B.M.; Yole, D.; Land Management Handbook No. 12; Ministry of Forests; 1986

A Field Guide for Identification and Interpretation of the Sub-Boreal Spruce Zone in the Prince Rupert Forest Region; Lewis, T.; Pojar, J.; Holmes, D.; Trowbridge, R; Coates, K.D.; Land Management Handbook No. 10; Ministry of Forests; 1986

Field Guide to Nodulation and Nitrogen Fixation Assessment; Trowbridge; Field Guide Insert No. 4; Ministry of Forests; 1991

A Field Guide to the Sedges of the Cariboo Forest Region British Columbia; Roberts, A.; Land Management Report No. 14; Ministry of Forests; 1983

A Guide to Collecting Cones of British Columbia Conifers; Eremko, R.D.; Edwards, D.G.W.; FRDA Report No. 55; Ministry of Forests, Forestry Canada; 1989

A Guide to Plant Indicators of Moisture for Southeastern British Columbia, with Engineering Interpretations; Comeau, P.G.; Comeau, M.A.; Utzig, G.F.; Land Management Handbook No 5; Ministry of Forests; 1982

A Guide to Selection and Propagation of Some Native Woody Species for Land Rehabilitation in British Columbia; Marchant, C.; Sherlock, J.; Research Report No. RR 84007-HQ; Ministry of Forests; 1984.

A Guide To Site Identification and Interpretation for the Kamloops Forest Region - Part I and II; Lloyd, D.; Angove, K.; Hope, G.; Thompson, C.; Land Management Handbook No. 23; Ministry of Forests; 1990

A Guide to Some Common Plants of the Kamloops Region, British Columbia; Angove, K.; Land Management Handbook No. 3; Ministry of Forests; 1981

A Guide to Some Common Plants of the Southern Interior of British Columbia; Angove, K.; Bancroft, B.; Land Management Handbook No. 7; Ministry of Forests; 1983

A Guide to Some Common Plants of the Skeena Area, British Columbia; Coupé, R.; Ray, C.A.; Comeau, A.; Land Management Handbook No. 4; Ministry of Forests; 1982

A Guide to the Coastal Western Hemlock Zone Northern Drier Maritime Subzone (CWHF) in the Prince Rupert Forest Region, British Columbia; Haeussler, S.; Pojar, J.; Geisler, B.M.; Yole, D.; Annas, R.M.; Land Management Report No. 21; Ministry of Forests; 1984

A Guide to the Interior Cedar-Hemlock Zone, Northwestern Transitional Subzone (ICHg) in the Prince Rupert Forest Region, British Columbia; Land Management Report No. 26; Ministry of Forests; 1985

A Guide to the Response of Common Plants in British Columbia to Management Treatments; Coats, D.; Haeussler, S; Mather, J.; FRDA Handbook No. 8; Ministry of Forests, Forestry Canada; 1990

A Guide to the Use of Mechanical Site Preparation Equipment in North Central B.C.; Coates, D.; Haeussler, S.; FRDA Handbook No. 2; Ministry of Forests, Forestry Canada; 1989

A Guide to Vegetation Control Equipment; Otchere-Boateng, J.; Ackerman; FRDA Handbook No 5; Ministry of Forests, Forestry Canada; 1990

Guide to Wetland Ecosystems of the Very Dry Montane Interior Douglas-Fir Sub-zone Eastern Fraser Plateau Variant (IDFb2) in the Cariboo Forest Region, British Columbia; Steen, O.A.; Roberts, A.L.; Land Management Report No. 55; Ministry of Forests; 1988

Guidelines for Alder Seed Tree Control: Operational Summary; Lousier, J.D.; FRDA Memo No. 132; Ministry of Forests, Forestry Canada; 1990

Guidelines for Free Growing Stocking Standards for the Vancouver Forest Region; Vancouver Circular VR 90-545; Ministry of Forests; April 1990

Guidelines for Free Growing Surveys for the Vancouver Forest Region; May 1991

- *describes procedures for assessing if there are sufficient well spaced free growing trees to make up a free growing stand*

Guidelines for Informing the Public About Proposed Herbicide Projects; Forest Issues Steering Committee; Project No. 1; Ministry of Forests; 1987

Guidelines for Seed Transfer of Western White Pine in B.C. Based on Frost Hardiness; Thomas, B.R.; Lester, D.T.; Worrall, J.; FRDA Report No. 125; Ministry of Forests, Forestry Canada; 1990

Herbicide Field Handbook; Otchere-Boateng, J.; FRDA Handbook No. 6; Ministry of Forests, Forestry Canada; 1990

Herbicide Use for Vegetation Management; Standard Operating Procedure No. 2; Cranbrook Forest District; Ministry of Forests; August 1988

Hydrologic and Geomorphic Considerations for Silvicultural Investments on the Lower Skeena River Floodplain; FRDA Report No. 122; Ministry of Forests, Forestry Canada; 1990

Identification and Interpretation of Ecosystems of the Western Kamloops Forest Region - First Approximation; Mitchel, W.R.; Green, R.E.; Land Management Handbook No. 2; Ministry of Forests; 1980

Identification and Management of Summer Frost-prone Sites in the Cariboo Forest Region; Steen, O.; Stathers, B.; Coupé, R.; FRDA Report No. 157; Ministry of Forests, Forestry Canada; 1990

Interior Spruce Pollen Management Manual; Webber, J.E.; Land Management Report No. 70; Ministry of Forests; 1991

Lodgepole Pine Spacing Guidelines; Standard Operating Procedure No. 9 - 2; Prince George Forest Region; Ministry of Forests; December 1987

Management of Black Cottonwood, Red Alder, Bigleaf Maple, and Paper Birch in Coastal British Columbia; McLennan, D.S.; FRDA Memo No. 133; Ministry of Forests, Forestry Canada; 1990

Managing Fireweed in the CVHvm, CWHws, and MH: Operational Summary; Bianco, J.; FRDA Memo No. 163; Ministry of Forests, Forestry Canada; 1990

Managing Fireweed on Problem Coastal Sites; FRDA Memo No. 163; Ministry of Forests, Forestry Canada; 1990

Measuring Soil Disturbance Following Timber Harvesting; Curran, M.; Thompson, S.; Field Guide Insert No. 5; Ministry of Forests; 1991

Nelson Region (Free-Growing) Stocking Standards Guidelines; Standard Operating Procedures 4 - 3; Ministry of Forests; May 1989

Partial Cutting Prescriptions in Southern British Columbia; FERIC; 1991

A Plantation Performance Assessment Guide for the Prince Rupert Forest Region; Pollack, J.; Van Thienen, F.; Nash, T.; Land Management Report No. 35; Ministry of Forests; 1985

Pre-Harvest Silviculture Prescription - Procedures for Completing Provincial Forms; Diggle, P.K.; Silviculture Branch; Ministry of Forests

Pre-Harvest Silviculture Prescription Procedures and Guidelines for the Vancouver Forest Region; May 1991

- *clarify what is required in a PHSP in the Vancouver Forest Region to the requirements of the Forest Act and the Silviculture Regulation*

Pre-Harvest Silviculture Prescriptions; Standard Operating Procedure No. 4; Prince George Forest Region; Ministry of Forests; May 1990

- *clarifies the requirements and standards for preparing and approving PHSPs to supplement the Silviculture Manual*

Pre-Stand Tending Surveys: Instruction Package; Ministry of Forests and Lands, Silviculture Branch; July 1987

A Preliminary Guide to the Response of Major Species of Competing Vegetation to Silvicultural Treatments; Coates, D.; Haeussler, S.; Land Management Handbook No. 9; Ministry of Forests; 1986

Prince George Forest District Procedures for PHSPs; Ministry of Forests; April 1990

Prince Rupert Forest Region Silviculture Manual Insert B - Report Form Routing; Ministry of Forests; September 1990

Prince Rupert Forest Region Silviculture Manual Insert C - Procedures for Preparing a Site Rehabilitation Plan; Ministry of Forests; September 1990

Prince Rupert Forest Region Silviculture Manual Insert D - Costs for Mandatory Viewing; Ministry of Forests; September 1990

Prince Rupert Forest Region Silviculture Manual Insert E - History Record Tenure Coding; Ministry of Forests; September 1990

Prince Rupert Forest Region Silviculture Manual Insert F - Signing, Brushing and Weeding Activities; Ministry of Forests; September 1990

Prince Rupert Forest Region Silviculture Manual Insert G - Guide for Conducting a Herbicide Project and Instruction For Completing a Pesticide Use Permit Application Form; Ministry of Forests; September 1990

Prince Rupert Forest Region Silviculture Manual Insert H - Annual Reporting Requirements; Ministry of Forests; September 1990

Prince Rupert Forest Region Silviculture Manual Insert I - Preparation of Preharvest Silviculture Prescriptions; Ministry of Forests; September 1990, February 1992 Draft

Prince Rupert Forest Region Silviculture Manual Insert J - Definition and Procedures for Determining "Not Sufficiently Restocked"; Ministry of Forests; September 1990

Prince Rupert Forest Region Silviculture Manual Insert K - Silviculture Trials: Design and Procedures; Ministry of Forests; September 1990

Prince Rupert Forest Region Silviculture Manual Insert L - Interim Procedures for Preparation of Partial Cut Pre-Harvest Silviculture Prescriptions; Ministry of Forests; April 1991

Prince Rupert Forest Region Silviculture Stocking Standards; Ministry of Forests; July 1990

Principles and Practices of New Forestry: A Guide for British Columbians; Hopwood, D.; Land Management Report No. 71; Ministry of Forests; 1991

Procedures for Assessing Free Growing Surveys; Vancouver Circular VR 90-546; Ministry of Forests; May 1990

Procedures for Completing Pre-harvest Silviculture Prescriptions; Cariboo Forest Region; Ministry of Forests; June 1990

Quick Tests for Tree Seed Viability; Leadem, C.L.; Land Management Report No. 18; Ministry of Forests; 1984

Reducing Mammal Damage to Plantations and Juvenile Stands in Young Forests of British Columbia; FRDA Memo No. 153; Ministry of Forests, Forestry Canada; 1990

Regenerating British Columbia's Forests; Lavender, D.R.; Parish, R.; Johnson, C.M.; Montgomery, G.; Vyse, A.; Willis, R.A.; Winston, D.; University of British Columbia Press; 1990

Regeneration Performance Assessments; Standard Operating Procedure No. 4 - 2; Prince George Forest Region; Ministry of Forests; March 1983

Requirements for Preparing and/or Approving Preharvest Silviculture Prescriptions; Standard Operating Procedure No. 4; Prince George Forest Region; Ministry of Forests; May 1990

Seedbed Surveys; Standard Operating Procedure No. 5 - 1; Prince George Forest Region; Ministry of Forests; February 1983

Silviculture Alternatives for the Management of Unstable Sites In the Queen Charlotte Islands; Sanders, T.R.W.; Wilford, D.J.; Land Management No. 42; Ministry of Forests; 1986

Silviculture Survey Action Plan 1992: Kispiox Forest District; Ministry of Forests; April 1992

Site Classification for Coastal British Columbia; Banner, A.; Green, R.N.; Inselberg, A.; Klinka, K.; McLennan, D.S.; Meidinger, D.V.; Nuszdorfer, F.C.; Pojar, J.; Ministry of Forests; 1990

Site Diagnosis, Tree Species Selection, and Slashburning Guidelines for the Vancouver Forest Region, British Columbia; Klinka, K.; Green, R.N.; Courtin, P.J.; Nuszdorfer, F.C.; Land Management Report No 25; Ministry of Forests; November 1984

Site Preparation and Planting Procedures to Minimize Seedling Water Temperature and Stress in Backlog Areas in the Southern Interior; Mitchell, B.; FRDA Memo No. 7; Ministry of Forests, Forestry Canada; 1987

Site Preparation Strategies to Manage Soil Disturbance - Interior Sites; Curran, M.; Fraser, B.; Bedford, L.; Osberg, M.; Mitchell, B.; Field Guide Insert No. 2; Ministry of Forests; 1990

Small Business Forest Enterprise Program PHSP Stand Operating Procedure; Nelson Forest Region; Ministry of Forests; April 1989

Some Common Plants of the Sub-Boreal Spruce Zone; Pojar, J.; Love, R.; Meidinger, D.; Seagel, R.; Land Management Handbook No. 6; Ministry of Forests; 1982

Stand Tending Guidelines for the Vancouver Forest Region; October 1991

A Stand-level Guide to the Selection of Reproduction Methods for Regenerating Forest Stands in the Vancouver Region; Ministry of Forests; 1991

Stocking Standards and Guidelines; Prince George Forest Region; Ministry of Forests; July 1985

Stocking Standards for the Prince George Forest Region; Ministry of Forests; 1990

Streamside Management: A Decision-making Procedure for South Coastal British Columbia; Moore, M.K.; Land Management Handbook No. 1; Ministry of Forests; 1980

Survival Studies; Standard Operating Procedure No. 6 - 1; Prince George Forest Region; Ministry of Forests; March 1987

Timing and Intensity of Surveys; Standard Operating Procedure No. 4 - 4; Prince George Forest Region; Ministry of Forests; March 1983

Treatment Scheduling: From Mature Forest to Free Growing Status: Operational Summary; Beaudry, L.; FRDA Memo No. 125; Ministry of Forests, Forestry Canada; 1990

User's Manual for the Reforestation Information Bank; Fedderson, B.; Hopkins, B.; Blozecken, M.; FRDA Handbook No. 3; Ministry of Forests, Forestry Canada; 1990

Vancouver Region Stand Tending Guidelines; Vancouver Circular VR 91-558; Ministry of Forests; October 1991

Willow Species of Disturbed Sites in the Sub-Boreal Spruce Zone in North-Central British Columbia; Porter, G.L.; FRDA Handbook No. 4; Ministry of Forests, Forestry Canada; 1990

Working With Your Forest Seedling Nursery - Tips to Selecting, Ordering and Inspecting Stock - Operational Summary; Scagel, R.; FRDA Memo No. 176; Ministry of Forests, Forestry Canada

Regulations

Silviculture Regulations; BC REG 147/88

This regulation deals with the preparation and content of a preharvest silviculture prescription (PHSP). The PHSP sets out the measures for establishing a new crop of trees on a cut-over site.

The regulation:

1. *sets out what a PHSP must accomplish (ie. adequate to ensure a free growing crop of trees) and describes what a prescription must contain. PHSPs must contain information such as: location of cutblock, harvesting method, and accommodation of resources other than timber*
2. *describes how a PHSP must be advertised so the public can comment on it*
3. *describes the obligation of the Crown to carry out basic silviculture (ie. establishing a free growing crop of trees)*
4. *describes the monitoring that must be done to ensure that an area is reforested and actions to be taken if the area is not reforested*
5. *empowers the Chief Forester to set standards for incremental silviculture*
6. *sets out the process to be used to appeal a decision made under the regulation*

Tree Cone and Tree Seed Regulation; BC REG 284/82

This regulation requires persons to obtain a permit to collect cones and seeds and describes the content of the permit. It sets out the registry system used to categorize and store seeds and provides for the processing and disposal of seeds.

Manual

Silviculture Manual; Ministry of Forests

Volume 1 and 2

Chapter 1 — Program Planning, Statistics and Policies

Chapter 2 — Silviculture Information Systems

-standards, guidelines and procedures for silviculture information systems (eg. History Records, MLSIS, Sowing Request Data Entry System)

Chapter 3 — Forest Tree Seed

-cone and seed regulations, collections from Provincial Parks, collections from Ecological Reserves, purchase of private or foreign seed

-seed requirements: seed zones, periodicity of cone/seed crops, seed needs, calculation of seed requirements

-seed production stands: planning, stand examination, selection criteria, establishment, development, harvesting operations, reports and records

-monitoring seed crops: winter bud surveys, cone crop surveys, cone crop summary

-seed collection: pre-organization, collection methods, collection operations, records of collection

Chapter 4 — Silviculture Surveys and SX Trials

-silviculture survey principles and procedures: sampling principles, aerial photography, basic office survey procedures, basic field survey procedures

-pre-harvest silviculture survey prescriptions

-silviculture surveys standards and procedures: stocking surveys, plantability surveys, survival surveys, regeneration performance assessment, free growing surveys

-drainage surveys

-silviculture trials: working plan, trial design, interim and final reports

Chapter 5 — Site Preparation

-site preparation methods: prescribed burning, mechanical, chemical, hand

-examination and choice of site treatment method

-site preparation project management

Chapter 6 Planting Projects
-project planning and administration
-care and handling of stock
-planting instruction, planting standards, planting procedures, planting production
-plantation mapping and identification
-establishment of sample plots and planting inspection

Chapter 7 Contract Administration
-planning, pre-award procedures, contract award, post-award contract administration

Chapter 8 Direct Seeding
-conditions influencing success, site preparation, assessment, timing, care of seed, methods (spot, broadcast, drill), sowing rates, predation, evaluation, re-seeding

Chapter 9 Stand Tending
-types of treatments, program planning and integrated use considerations, pre-stand tending surveys, treatment prescriptions
-juvenile spacing: purpose, priority rating, methods and application, technique, quality control and inspections, post treatment monitoring
-commercial thinning: operations procedures, stand selection, cruising, marking, harvesting systems (layout considerations), contract administration
-brushing and weeding: conifer release, seed tree control

Chapter 10 Silviculture Information Systems
-coding standards

Chapter 11 Administration

Chapter 12 Vegetation Management
-definitions, vegetation management options, vegetation management prescription procedures, project lay-out policies and procedures, project administration monitoring

Chapter 13 Pre-Harvest Silviculture Prescriptions
-instructions for Assessing/Auditing PHSPs: pre-approval assessments, post-approval audits and assessments, audit format, notice to comply, default on notice to comply, other enforcement methods, annual report

Volume 3

-detailed standards for History Records coding and information
-detailed standards for silviculture surveys

Engineering

Guidelines

A Guide to Co-ordinated Access Management Planning; Integrated Resources Branch; Ministry of Forests; 1989

A Guide to Co-ordinated Access Management Planning; Ministry of Forests; January 1989

- *a guide to planning forest access that integrates public and industrial access requirements with government management strategies*

A Guide for Management of Landslide-Prone Terrain in the Pacific Northwest, Land Management Handbook No. 18; Ministry of Forests; April 1991

- *describes slope movement processes and characteristics; an office/field technique for recognizing landslide-prone terrain; measures to manage unstable terrain during forestry activities; road deactivation and revegetation of unstable terrain*

A Handbook for Forest Roadside Erosion Control in British Columbia; Carr, W.W.; Land Management Report No. 4; Ministry of Forests; 1980

A Soil Erosion and Sediment Control Planning System for Managed Forested Land and a Case Study; Carr, B; Chatwin, S.; Land Management Report No. 69; Ministry of Forests

Access Management Guidelines; Cranbrook Forest District

- *guidelines for access development and road closures that respond to the needs of all forest management activities*

Access Planning for Timber Development; Standard Operating Procedure No. 3 - 2; Prince George Forest Region; Ministry of Forests; February 1986

Administrative and Operational Responsibilities and Procedures for Managing Forest Service Bridges and Structures; Standard Operating Procedure No. 1; Nelson Forest Region; Ministry of Forests; April 1987

Basic Soil Interpretations for Forest Development Planning - Surface Soil Erosion and Soil Compaction; Krumlik, K; Land Management Report No. 63; Ministry of Forests

Development of Access Plans; Standard Operating Procedure No. 3 - 1; Prince George Forest Region; Ministry of Forests; October 1986

Engineering Specifications for the Planning, Location, Design, Construction, Maintenance and Deactivation of Logging Roads and Drainage Structures in the Vancouver Forest Region; June 1989

Forest Road and Logging Trail Engineering Practices (unpublished draft); Ministry of Forests; 1992

Guidelines for Construction and Cleanup of Roads, Leases and Seismic Lines in Petroleum Exploration Areas; Ministry of Energy, Mines and Petroleum Resources; January 1990

- *a guide to the approved procedures and construction techniques used in petroleum or geothermal related activities in B.C.*

Ground Skidding Guidelines - With Emphasis on Minimizing Site Disturbance; Ministry of Forests and Lands; 1987

- *a guide to the planning, layout and construction of forest access directed at minimizing site disturbance*

Kispiox Forest District Sediment Control Plan; Anweiler, D. - Draft; Ministry of Forests

- *provides specific techniques to address: road planning and location, construction, maintenance, deactivation, harvesting plans, block layout, harvesting methods, mechanical site preparation, broadcast burning, forest health, fireguard construction, slope stabilization and accountability*

Landslide Events In, On, or Adjacent to Forest Service Roads or Forest Service Administered Areas; Letter to all District Managers; Chou, B.; Curran, M.; Toews, D.; Nelson Forest Region; Ministry of Forests; May 1990

Operational Guidelines for Landing Debris Disposal and Rehabilitation; Standard Operating Procedure No. 4 - 1; Prince George Forest Region; Ministry of Forests; June 1986

Road Location Survey Procedures and Standards; Standard Operating Procedure No. 2 - 1; Prince George Forest Region; Ministry of Forests; November 1986

Slope Stability Evaluation Using Digital Terrain Models; Chatwin, S; Land Management Report No. 74; Ministry of Forests

Soil Reconnaissance Standards; Standard Operating Procedure No. 2 - 2; Prince George Forest Region; Ministry of Forests; September 1986

Standard Specifications for Construction of Roads; Kamloops Forest Region; Ministry of Forests; 1984

Regulations

Ministry of Forests Road Right-of-Way and Recreation Trail Regulation; BC REG 213/83

This regulation sets out the provisions for using Forest Service roads, rights-of-way and trails, for operating all-terrain vehicles on trails, and the signing requirements for trails. It also deals with the maintenance of vehicles using Forest Service roads, the protection of roads and requires a permit to construct on a road.

Manual

Engineering Manual; Ministry of Forests

Chapter 1 Estimating Guide
-estimating costs for engineering projects

Chapter 2 Survey and Design
-policy support: survey and design, roadway design, survey through alienated land, site survey for drainage structures on forest roads, soil survey, mapping
-technical procedures: general survey, details of survey classes, classes of roadway design, survey through alienated land, surveys for drainage structures on forest roads, procedures for soil survey, drawing and map legends, air photos

Chapter 3 Access Development
-resource development study: basic objectives, prefield investigation, field investigation
-general study information: physical factors (geography, forest values, existing developments), development study (comparison of alternatives, order of cost figures), maps and air photos, land status, forest inventory, amortization, aesthetics, gravel and rocks, soils and landforms
-access planning: overall development (selection of alternatives), preliminary developments (timber inventory, harvesting plan), access plan development
-roads: alignment, selection of standards, estimating traffic density, road width requirements, road class, volume of excavation, junctions and crossings

-drainage structures: bridges, culverts, navigable routes
-log transportation: log haul times, types of log haul
-selection of road standards

Chapter 4 Road Administration

-definition of road types, legislation and policy, road permits, property acquisition, deactivation of roads, special use permit, gravel reserves, works within Forest Service right-of-way, Land Act subdivisions, road register

Chapter 5 Contracts and Agreements

-applications and limitations of contracts and agreements, construction contracts, form of agreement, equipment rental agreement

Chapter 6 Road Construction and Maintenance

-construction guidelines: planning, administration construction survey, clearing right-of-way, subgrade construction (excavation, earth movement), rock work, compaction, drainage, structures stabilizing, revegetation, problem sites
-maintenance guidelines: definitions, grading, gravelling, subgrade repair, structures, right-of-way, winter operations, deactivated roads

Chapter 7 Bridges and Culverts

-planning: job schedule, responsibility assignment, other concerned agencies
-design: professional input, site selection, site information, design specifications, preliminary design proposals, estimates without design, final design, standard drawings
-construction: restrictions, construction agencies and agreements, professional input, as-built records, acceptance of structure
-inspection and maintenance of existing bridges: inspection, load rating, maintenance, bridge register
-inspection and maintenance of culverts

Protection

Guidelines

A Guide to Prescribed Broadcast Burning in the Vancouver Forest Region; Ministry of Forests; March 1985

- *a reference for prescribed broadcast burn planning, fire impact and burning methodology to attain fuel reduction and vegetation management objectives*

A Guideline for Prescribed Burn Objectives; Standard Operating Procedure No. 1; Cranbrook Forest District; Ministry of Forests; September 1989

A Strategy for Vegetation Management Within the Kispiox Forest District; Kispiox Brushing Advisory Committee; March 1990

Aerial Forest Pest Surveys; Nelson Forest Region; Ministry of Forests; 1986

Agreement Between the Ministry of Environment and the Ministry of Forests on the Use of Prescribed Fire for Wildlife Habitat Improvement; April 1981

Air Operations Procedures for the Nelson Forest Region; Standard Operating Procedure No. 9 - 1; Ministry of Forests; May 1990

Bark Beetle Ground Surveys; Nelson Forest Region; Ministry of Forests; 1987

Black Army Cutworm Detection and Management; Nelson Forest Region; Ministry of Forests; 1988

Choosing Stand Density When Spacing Juvenile Lodgepole Pine in Presence of Risk of Pest Attack; Errico, D.; Research Report No. RR89004-HQ; Ministry of Forests; 1989

Conventional Trap Tree Strategies For Spruce Beetle; Standard Operating Procedure No. 9 - 1; Prince George Forest Region; Ministry of Forests; September 1983

Dwarf Mistletoe; Nelson Forest Region; Ministry of Forests; 1986

Felled Lethal Trap Trees for Spruce Beetle; Standard Operating Procedure No. 9 -2; Prince George Forest Region; Ministry of Forests; September 1983

Field Handbook for Prescribed Fire Assessment in British Columbia; Trowbridge, R.; Hawkes, B.; MacAdam, A.; Parminter, J; Land Management Handbook No. 11; Ministry of Forests; 1986

Fireline Certification Handbook; Ministry of Forests; April 1992

Ground Detection, Assessment and Reporting Procedures for Infestation by *Dondroctonus* Beetles; Standard Operating Procedure No. 9 - 3; Prince George Forest Region; Ministry of Forests; January 1984

Guidelines for *Rhizina* root disease control in the Prince Rupert Forest Region; Ministry of Forests

Guidelines for Slash Disposal Orders; Vancouver Circular VR 86-505; Vancouver Forest Region; Ministry of Forests; July 1986

Guidelines for the Development of a Mountain Pine Beetle Management Plan for the Okanagan Timber Supply Area; Ministry of Forests; 1990

Guidelines for the Development of a Mountain Pine Beetle Operational Plan for a Beetle Management Unit; Ministry of Forests; 1990

Guidelines for Vegetation Management in the Kispiox TSA; Ministry of Forests; June 1991

Gypsy Moth in the Vancouver Forest Region; Vancouver Circular VR 86-490; Vancouver Forest Region; Ministry of Forests; January 1986

Handbook for Pesticide Applicators and Dispensers - Forestry Supplement; Ministry of Forests; March 1991

- *a learning guide containing forestry specific information on the safe use of pesticides*

Hemlock Dwarf Mistletoe Management; Vancouver Circular VR 85-485; Vancouver Forest Region; Ministry of Forests; November 1985

Kispiox Brushing and Weeding Strategy: Accomplishments and Future Plans; Ministry of Forests; March 1992

Kispiox Forest District Fire Management Plan; Atherton, B.; Ministry of Forests; 1989

- *describes: values at risk, fuel types, fire prevention, detection, initial attack, expanded attack, fire weather, fire rehabilitation and protection stocking levels*

Laminated Root Rot Management, Vancouver Circular Letter VR85-476; Vancouver Forest Region; August 1985

- *establishes requirements for* Phellinus weirii *root disease control*

Lodgepole Pine Dwarf Mistletoe; Cariboo Forest Region; Ministry of Forests; 1991

Management Guidelines for Laminated Root Rot in the Vancouver Forest Region - Operational Summary; Beale, J.; FRDA Memo No. 108; Ministry of Forests, Forestry Canada; 1989

Mountain Pine Beetle Infested Stand Priority Ranking System for Harvest; Nelson Forest Region; Ministry of Forests; 1989

Operational Guidelines for Site Treatment Instructions; Standard Operating Procedure No. 4 - 3; Prince George Forest Region; Ministry of Forests; April 1985

Operational Procedures for Habitat Burning Covered Under the Protocol Agreement with MOE; Standard Operating Procedures No. 4 - 6; Prince George Forest Region; Ministry of Forests; May 1990

- *procedures that apply to all burning conducted under MOE five-year habitat improvement plans in areas of common jurisdiction*

Pesticide Storage and Handling; Standard Operating Procedure No. 14 - 6; Prince George Forest Region; Ministry of Forests; March 1985

Prince George Forest District Smoke Management Plan; Ministry of Forests; March 1990

- *describes strategies and techniques for managing smoke from prescribed fires and sets out procedures for burning approvals or permit issuance*

Request and Operational Procedures for Fire Camp 4; Standard Operating Procedure No. 1; Nelson Region; Ministry of Forests; July 1988

Scheduling and Recording Bark Beetle Management Activities; Nelson Forest Region; Ministry of Forests; 1986

Sitka Spruce Weevil Management; Vancouver Circular VR 85-471; Vancouver Forest Region; Ministry of Forests; May 1985

Smoke Control Program for 1986, Vancouver Circular Letter VR86-497; Vancouver Forest Region; April 1986

- *sets rules, roles and responsibilities to prevent a build-up of smoke into a designated smoke-sensitive area*

Spruce Beetle Trap Tree Deployment; Standard Operating Procedure No. 9 - 4; Prince George Forest Region; Ministry of Forests; February 1984

Spruce Beetle Trap Trees; Nelson Forest Region; Ministry of Forests; 1986

Standard Operating Procedures/Management Guidelines for Armillaria ostoyae Root Disease; Draft No. 4; Nelson Forest Region; Ministry of Forests; February 1992

Strategies and Tactics for Mountain Pine Beetle Management; Safranyik, L.; Hall. P.M.; Ministry of Forests; 1990

Use of Felled Trap Trees as a Supplementary Technique for Reducing Spruce Beetle Infestation; Fiddick, R.L.; Environment Canada; March 1978

Use of MSMA Against Mountain Pine Beetle; Standard Operating Procedure No. II 9 - 8; Prince George Forest Region; Ministry of Forest; July 1991

Use of Trap Trees for Spruce Beetle Management in B.C.; Pest Management Report No. 5

Use of Semiochemicals to Manage Mountain Pine Beetle; Standard Operating Procedure No. II 9 - 7; Prince George Forest Region; Ministry of Forests; December 1987

Use of MSMA Against Mountain Pine Beetle; Standard Operating Procedure No. II 9 - 8; Prince George Forest Region; Ministry of Forests; November 1987

Regulations

Forest Fire Prevention Regulation; BC REG 52/91

This regulation combines four previous regulations.

This regulation determines the fire precautions required by all industrial activities that operate within 300 metres of a provincial forest from April 14 - October 15.

It permits campfires for the purpose of preparing food and obtaining warmth, subject to certain restrictions which ensure the fire is not a hazard.

It regulated the fire precaution requirements of provincially-chartered railways from April 15 - October 15.

It sets the amount payable to the Crown for failure to dispose of slash and snags when directed under Section 177 and 118 of the Forest Act.

Manual

Protection Manual; Ministry of Forests; March 1988

Chapter 1	Fire Management Organization *-organizational structure, fire organization charts, fiscal administration, junior forest wardens*
Chapter 2	Fire Management Planning *-fire management planning responsibilities, fire management plan format, preparedness strategy*
Chapter 3	Fire Prevention *-burning permits, campfires, forest use restrictions, fire prevention regulations, dropping burning substances, fire prevention - railways*
Chapter 4	Fuel Management *-fuel management planning, slash disposal instructions, pre-burn considerations, procedures during burning, post-burn procedure, prescribed burn escape liability, snag falling, range and wildlife burning, mining and geophysical exploration, miscellaneous fuel situations*
Chapter 5	Fire Weather *-Canadian forest fire danger rating system, fire weather forecasting, fire weather network, weather instruments and forms, fire weather training*
Chapter 6	Detection and Reporting *-detection responsibilities, lookouts, aerial patrols, ground patrols, lightning location system, infrared detection, public reporting*

Chapter 7 Fire Suppression
-preorganization, command organization, fire control officer, certification and training, fire stand-by, fire overhead teams, strategic fire control plan, initial attack, unit crews, fire equipment management, fire communication, fire suppression administration, use of other government resources, fire suppression agreements, evacuation, residential-wildland interface, media

Chapter 8 Fire Suppression Responsibilities and Authority
-wildfire suppression responsibilities, forest officer's authority, claims as a result of wildfires

Chapter 9 Fire Management Reports
-definition of a wildfire, preliminary fire report, wildfire situation report, outstanding fire reports, the role of the final fire report, wildfire report, wildfire map, billing fire costs, fire management reviews

Chapter 10 Fire Law Enforcement
-criminal code offense, offenses - Forest Act, offenses - regulations, preliminary prosecution procedures, officers of a corporation, limitations of prosecution

Chapter 11 Fire and the Environment
-Provincial Parks, National Parks, ecological reserves, smoke management, pollution control, fire site rehabilitation

Planning

Guidelines

A Preliminary Operating Plan for the Power River Watershed, Appendix III Power River Local Resource Use Plan; Doman Industries Limited; December 1985

- *describes guidelines for operational planning that reflect management objectives for timber, fish, wildlife, recreation and heritage values.*

Artlish River Local Resource Use Plan Guidelines, Revised; BCFS, MOE, DFO; January 1990

- *contains guidelines for harvesting that address management objectives for fish, wildlife, forage, varying terrain and Karst/cove features*

Chute Lake Forest Management Plan; Ministry of Forests; 1991

- *describes expected standards for the future development and management of landscapes, recreation, timber, wildlife, range and water*

Draft Morice Forest District Total Chance Planning Outline; Ministry of Forests; 1991

Draft Structure of Integrated Resource Plan, Vancouver Region; Ministry of Forests; 1991

Forest Harvesting and Renewal Planning for the British Columbia Interior: An Extension of the Total Chance Concept; FERIC; 1990

Forest Licence Management and Working Plan Outline; Vancouver Circular VR 88-520; Vancouver Forest Region; Ministry of Forests; May 1988

Forest Management in the Upper Carmanah Valley: Recommendations of the Public Advisory Committee; April 1992

Guide for Submission of the Management and Working Plan, the Development Plan, Annual Report and the Cutting Permit Application; Standard Operating Procedure No. 6 - 1; Prince George Forest Region; Ministry of Forests; September 1985

Integrated Resource Planning for Forest Operations in British Columbia; FERIC; January 1990

Kelowna South Slopes Community Forest Strategic Plan; Ministry of Forests; in progress

Kispiox Forest District Total Chance Planning Requirements; Ministry of Forests

- *explains format for licensee total chance plans and the information required on maps*

Lakes Local Resource Use Plan: Lakeshore Harvesting Guidelines; Ministry of Forests; 1991

Local Resource Use Plans; Prince George Forest Region; Ministry of Forests; November 1990

Moyie Corridor Local Resource Use Plan; Cranbrook Forest District; Ministry of Forests; in progress

Options for the Babine River Area, Smithers; B.C. ; Ministries of Environment and Forests; November 1991

Planning Guidelines for Tree Farm Licence Management and Working Plans; Chapter Four, Resource Planning Manual; Ministry of Forests; 1985

Resource Management Consensus Report for the Kispiox Timber Supply Area: An Integrated Resource Management Strategy - Edition 1; Ministry of Forests; November 1991

- *a negotiated agreement for integrated resource management by a wide spectrum of local resource groups. The ministries of Forests, B.C. Environment and Tourism facilitated the process*

Timber Development Planning for the British Columbia Interior: The Total Chance Concept; FERIC; 1983

Tree Planning - A Guide to Public Involvement in Forest Stewardship; B.C. Public Interest Advocacy Centre; 1990

Trench Integrated Renewable Resource Management Plan: Cranbrook Forest District Component; Ministry of Forests, Ministry of Environment, Ministry of Agriculture; December 1990

- *divides the Rocky Mountain Trench into management polygons, establishes primary uses, and sets management prescriptions for each*

Recreation

Guidelines

An Interpretive Guide for Integrating Harvesting and Silviculture Activities for Protecting Forest Recreation Resources, Draft; Ministry of Forests; March 1992

Cave Management Handbook - Including Cave/Forestry Guidelines for the Vancouver Forest Region; Ministry of Forests: August 1990

- *outlines the responsibilities of the Forest Service and licensees; provides staff guidance on the impacts of forestry operations; encourages user participation in the identification and management of sensitive caves*

Forest Development Guidelines to Meet the Visual Quality Objectives for the Nelson Forest Region; November 1989

- *ensures that the visual resource is considered during the integrated resource management process; prescribes harvesting guidelines for each VQO; describes engineering specifications for consideration in development plans*

Forest Landscape Handbook; Ministry of Forests; May 1981

- *a guide that illustrates forest landscape management techniques and their application to integrated resource management in B.C.*

Guide for the Submission, Updating and Conditions of Five-Year Development Plans for Heliport and Glading by Commercial Mechanized Ski Firms; Nelson Forest Region; Ministry of Forests; February 1992

Height of the Rockies Management Plan; Ministry of Forests; in progress - pending approval

- *establishes management strategies for zones in the plan area within broad objectives, such as the maintenance of natural processes. Specific management guidelines (e.g. fire suppression) will follow*

Interim Forest Landscape Management Guidelines for the Vancouver Forest Region; July 1990

- *explains responsibilities for each phase of the landscape management process; provides guidance on the implications of visual quality objectives on harvesting extent; provides guidance on the effect of slope and growth rates on visually effective green-up*

Interim Recreation and Forest Landscape Management Guidelines for the Mid-Coast Forest District; Ministry of Forests; June 1991

Landscape Considerations for Interim Harvesting Guidelines - Kispiox Forest District; Davies, L.; Ministry of Forests; February 1992

- *describes visual impact assessment methodology, identification of viewpoints and visible areas, mapping, and factors to consider to meet VQOs*

Management of Recreation Cabins on Forest Lands; Standard Operating Procedure No. 3 - 2; Prince George Forest Region; Ministry of Forests; February 1987

Recreation and Landscape Input into Resource Management Plans for Timber Supply Areas and Tree Farm Licences; Standard Operating Procedure No. 6 - 2; Prince George Forest Region; Ministry of Forests; June 1991

Recreation Content of Tree Farm Licence Management and Working Plans, Letter to Licensees; Vancouver Region; November 25,1988

- *lists the minimal acceptable standards for the recreation component of Management and Working Plans*

Recreation Management in TFLs; Executive Letter to Regional Managers; June 30,1989

- *provides direction on recreation management in TFLs with respect to ownership, accountability, objectives, planning, funding and signing*

Recreation Management Plan - North Star / Suzanne Lake; Standard Operating Procedure No. 1-Rec; Cranbrook Forest District; September 1988

Seven Sisters Trail Management Plan - Kispiox Forest District; Ministry of Forests; August 1991

- *details objectives and a schedule for the management of the six existing and any future trails in the plan area*

Swan Lake Wilderness Area Management Plan Outline - Discussion Paper; Ministry of Forests; May 1990

- *describes management objectives, goals, concerns and guidelines for recreation, landscape, fish and wildlife, forest protection, ecosystem reserves, mineral - petroleum - and natural gas exploration, and forest research*

Regulations

Rules Concerning the Use of Recreation Sites and Trials Regulation; BC REG 9/79

This regulation identifies the rules one must observe while using designated Forest Service recreation sites and trails (eg. rules regarding noise, firearms, pets, etc.).

Manual

Recreation Manual; Ministry of Forests

Chapter 1	The Recreation Program *-mission statement, program goals and program structure*
Chapter 2	Statutory Authority
Chapter 3	Recreation Program Policy
Chapter 4	Recreation Program Management *-program management plans, budget submissions, annual reports, audits*
Chapter 5	Communication and Training *-brochures, interpretive forests, communications activities, training*
Chapter 6	Recreation Inventory *-Recreation Opportunity Spectrum (ROS) delineation criteria and procedures* *-land unit delineation and classification, biophysical features and sub-features, feature related recreation activities, feature significance, management class* *-inventory report, inventory summary, resource emphasis areas, mapping and data presentation, detailed feature descriptions*
Chapter 7	Recreation Analysis *-recreation analysis procedures and responsibilities* *-recreation facility and structure inventory* *-recreation use and demand* *-recreation value, valuation methods and procedures* *-recreation carrying capacity*
Chapter 8	Recreation Planning *-forest planning framework, provincial policies, regional priorities, Forest Management Planning for TSAs and TFLs, Local Resource Use Planning, Development Planning*

Chapter 9	Recreation Site Management *-site planning: concept planning, site designation, site assessment, and site design* *-site construction: principles of site construction and facility guidelines* *-routine site maintenance: principles and procedures* *-site rehabilitation: principles and procedures* *-cooperative projects* *-enforcement*
Chapter 10	Recreation Trail Management *-trail planning: concept planning, trail designation, trail assessment, trail design* *-trail construction: principles for trail construction and guidelines for specific trail types* *-routine trail maintenance: principles and procedures* *-trail rehabilitation* *-cooperative projects* *-enforcement*
Chapter 11	Forest Landscape Management *-landscape inventory procedures* *-landscape analysis procedures* *-setting forest landscape management objectives, priorities and guidelines* *-landscape design* *-implementation: forest practices, landscape rehabilitation and enhancement* *-monitoring*
Chapter 12	Wilderness Management *-history of MOF Wilderness Program, wilderness policy, procedures and responsibilities, MOF wilderness action plan* *-backcountry recreation management*
Chapter 13	Cave/Karst Management *-goals, roles, responsibilities, inventory, management, liaison and communication, safety and rescue*
Chapter 14	Recreation Corridor Management *-types of recreation corridors, MOF recreation corridor programs, other agency corridor programs*
Appendix 1	Forms and Posters *-recreation program forms and posters, contract administration forms, general forms*

Appendix 2 Recreation Structure Standards
-toilet components, toilet installation, pit toilet stem, tables, signs, sign shelters, fire rings, firewood corral, barrel shelters, self-registration box, boat launch ramp, safety barriers

Appendix 3 Contract Administration
-contract planning, pre-award procedures, contract award, post-award contract administration

Appendix 4 Non-Ministry Funding
-management agreements, cooperative projects with other agencies, employment and educational programs, volunteer works, other funding opportunities

Appendix 5 Site and Trail Designation
-definitions, procedures and responsibilities, samples

Appendix 6 Signs
-general policies and directions, specific procedures and standards, issues and initiatives

Glossary

Water

Guidelines

Appendix H, Guidelines for Watershed Management of Crown Lands Used as Community Water Supplies; Ministry of Environment; November 1984

- *documents a framework for resource planning in community watersheds that recognizes the importance of domestic, irrigation and other water supplies*

Forest Hydrology Sensitivity Analysis for Coastal British Columbia Watersheds, Watershed Workbook, Interim Edition; Ministry of Forests and Lands; August 1987

- *provides a method of evaluating the potential impact of cumulative effects for logging on stream channel morphology*

Guidelines for Stream Crossings - Kootenay Region; Martin, D.; Oliver, G.; Ministry of Environment; February 1983

Guidelines for Watershed Management of Crown Lands Used as Community Water Supplies; Ministry of Environment; October 1980

- *provides guidelines for road construction, agriculture and grazing, forestry, mining and exploration, recreation and rights-of-way in community water supplies*

Mark Creek Integrated Watershed Management Plan; Cranbrook Forest District

- *describes management guidelines for each management polygon with water values being given the highest priority*

Naramata Integrated Watershed Management Plan; Ministry of Forests; in progress

Operational Guide to Hydrologic Assessment of Southern Interior Watersheds; Ministry of Forests; in progress

Penticton Creek Integrated Watershed Management Plan; Ministry of Forests, Ministry of Environment; April 1991

- *provides guidelines for resource use and development in a community watershed establishing water use as the highest priority*

Queen Charlotte Islands Stream Rehabilitation Studies - A Review of Potential Techniques; Land Management Report No. 28; Ministry of Forests; 1984

Springer Creek Integrated Watershed Management Plan; Arrow Forest District; Ministry of Environment, Ministry of Forests

Stream Rehabilitation Using LOD Placements and Off-Channel Pool Development; Krumlik, G.; Land Management Report No. 61; Ministry of Forests

Streamside Management: A Decision-Making Procedure for South Coastal B.C.; Land Management Handbook No. 1; Ministry of Forests; 1980

The Effects of Streamside Logging on Large Organic Debris in Carnation Creek; Toews, D.A.; Moore, M.K.; Land Management Report No. 11; Ministry of Forests; 1982

Watershed Harvesting Guidelines (Proposed); Nelson Forest Region; March 1991

- *classifies watersheds as one of six types and recommends acceptable ranges of equivalent clearcut area (ECA) for each*

Watershed Rehabilitation Options for Disturbed Slopes on the Queen Charlotte Islands; Land Management Report No. 36; Ministry of Forests; 1985

Wildlife

Guidelines

A Method For Monitoring Wildlife in Managed Forests; Wilford, D.; F.R.D.A. Memo No. 171; Ministry of Forests, Forestry Canada; 1990

Deer and Elk Habitats in Coastal Forests of Southern British Columbia; Special Report Series No. 5; B.C. ministries of Environment and Forests; 1990

Deer Movements and Habitat Use During Winter: Working Plan; Nyberg, J.B.; Doyle, D.; Peterson, L.; Integrated Wildlife - Intensive Forestry Research No. 18; Ministry of Forests; 1985

Forest Crowns, Snow Interceptions and Management of Black-tailed Deer Winter Habitat; McNay, R.S.; Integrated Wildlife - Intensive Forestry Research No. 19; Ministry of Forests; 1985

Handbook for Timber and Mule Deer Management Co-ordination on Winter Ranges in the Cariboo Forest Region; Armleader, H.M.; Dawson, R.J.; Thomson, R.N.; Land Management Handbook No. 13; Ministry of Forests; 1986

Interim Guidelines for Integrating Coastal Grizzly Bear Habitat and Silviculture in the Vancouver Forest Region, Draft; Ministry of Forests

- *a guide to assist MOF Silviculture Resource Officers, district planners, B.C. Environment, Lands and Parks Protection Technicians and other managers who prepare PHSPs, PUPAs or stand tending prescriptions*

Interim Recommendations to Protect Marbled Murrelet Nesting Habitat; Executive Letter to Regional and District Managers and Branch Directors; Ministry of Forests; February 8 1991

- *gives specific guidance to managers who are currently managing these habitats and need to retain options to manage for other aspects of biological diversity*

Managing Young Forests as Black-tailed Deer Winter Ranges; Nyberg, J.B.; Bunnell, F.L.; Janz, D.W.; Ellis, R.M.; Land Management Report No. 37; Ministry of Forests; 1986

Pre-harvest Silviculture Prescription to Protect and Maintain Wildlife Habitat: Draft Edition, Vancouver Region; Ministry of Forests; 1991

Woodland Caribou and Their Habitat in Southern and Central British Columbia; Stevenson, S.K.; Hatler, D.F.; Land Management Report No. 23, Vol. I and II; Ministry of Forests; 1985

Fisheries

Guidelines

A Handbook for Fish Habitat Protection on Forest Lands in British Columbia; Department of Fisheries and Oceans; 1981

Draft Coastal Fisheries/ Forestry Guidelines 3rd Edition; B.C. ministries of Environment and Forests, Department of Fisheries and Oceans, Council of Forest Industries; 1991

Interior Fisheries/ Forestry Guidelines - Background for Guideline Development; Canada Department of Fisheries and Oceans; June 1990

- *provides a summary of fishery guidelines and targets set by the MOF with respect to rate-of-cut, green-up, stream and lakeside treatments, use of chemicals, revegetation and erosion control*

Using Large Organic Debris to Restore Fish Habitat in Debris-torrented Streams; Land Management Report No. 47; Ministry of Forests; 1986

Conservation

Guidelines

British Columbia Archeological Impact Assessment Guidelines; Ministry of Municipal Affairs, Recreation and Culture; 1991

- *describes roles and responsibilities, impact assessment and impact management of various development projects*

Guidelines to Maintain Biological Diversity in TFL #44 and TFL #46; Ministry of Forests, B.C. Environment; December 1991

- *guidelines for the use of forest management planners in conjunction with existing and proposed resource management strategies and guidelines*

Hudson's Bay Company Heritage Trail: Draft Management Plan; Ministry of Forests; February 1992

Interim Wildlife/Forestry Guidelines for Biological Diversity at the Stand Level During Juvenile Spacing Entries; Ministry of Forests, B.C. Environment; February 1992

- *a guide for those involved with spacing activities to ensure that the attributes needed to maintain biodiversity are recognized*

Management and Administration of Ecological Reserves; Vancouver Circular VR 92-560; Ministry of Forests; February 1992

Managing for Biodiversity in the Prince Rupert Forest Region; Stevenson, J.D.; Draft; Ministry of Forests; 1992

Memorandum of Agreement for the Protection of Heritage Trails in Provincial Forests; Ministry of Tourism; 1987

Towards an Old Growth Strategy: Public Review Draft; Ministry of Forests; 1992

Inventory

Manual

Inventory Manual; Ministry of Forests

Volume 1 Introduction and overview of the Inventory Branch

- *Introduction*
- *History*
- *The Inventory Cycle*
- *Organization*
- *Program Descriptions*
- *Glossary of Terms*

Volume 2 Forest Classification/ Sampling and Environmentally Sensitive Areas

- *Forest Classification: detailed procedures for stratifying and classifying forest stands*
- *Environmentally Sensitive Areas: detailed procedures for identifying and classifying environmentally sensitive areas*
- *Forest Sampling: detailed procedures for conducting forest sampling*

Volume 3 Growth and Yield/Decay and Volume

- *Establishment of Permanent Growth Samples in Natural Stands: detailed procedures for establishing permanent sample plots in natural stands*
- *Remeasurement of Permanent Growth Samples in Natural Stands: detailed procedures and standards*
- *Remeasurement of Experimental Plots in Natural Stands: detailed procedures and standards*
- *Intensive Forestry Monitoring Installation Establishment: detailed procedures and standards*
- *Intensive Forestry Monitoring Installation Remeasurement: detailed procedures and standards*
- *Remeasurement of Productivity Installations in Managed Stands: detailed procedures and standards*
- *Establishment of Permanent Growth Samples in Silviculturally Treated Stands: detailed procedures and standards*
- *Sampling for Decay: detailed procedures and standards*
- *Sampling for Volume Equation Derivation: detailed procedures and standards for sampling to get tree form information for calculating volumes of trees*

Volume 4 Photogrammetry and Photo Interpretation

- *Photogrammetry: air photographs, use of stereoscope, measurements, mosaics and photomaps, fixed-base photography, calculation of diameter and whole stem volume from large-scale photo measurements*
- *Photographic Interpretation: elements of photo interpretation, interpretation of stand parameters from mid-scale black-and-white photographs, identification of tree species on large-scale 70mm colour stereograms*

Volume 5 Preparation and Creation of FRGIS Data Files

- *Resource Statistics: area file creation, entry of detailed attributes, editing and correction of attribute data, completion of the file, projection of the file, creation of forest cover labels, direct label entry, editing and correction of data, completion of the file*
- *Preparation of Forest Cover Source Maps: methods of preparing GIS input documents; preparation of base maps for forest cover mapping; derivation and transfer of forest cover polygon boundaries from source photos or satellite data; mapping details: polygon size descriptions, numbering, history record opening numbers*
- *Forest Resource Geographic Information Systems: general specifications, map standards, map construction, forest cover labels and text nodes, quality control, output products*
- *Map Overlays: detailed procedures and standards for overlay preparation and digitization*

Range

Guidelines

Grass Seeding Logged and Burned Sites; Standard Operating Procedure No. 1 - Range; Cranbrook Forest District; Ministry of Forests; January 1991

Grazing Guidelines for the Vernon Forest District; Ministry of Forests; 1991

Northern Rocky Mountain Crown Range Grazing Policy; Standard Operating Procedure No. 2 - 2; Prince George Forest Region; Ministry of Forests; April 1983

Range Improvement Processing; Standard Operating Procedure No. 3 - 1; Prince George Forest Region; Ministry of Forests; August 1983

Range Unit Planning Procedures; Standard Operating Procedure No. 1 - 1; Prince George Forest Region; Ministry of Forests; March 1983

Revised Requirements for Grazing Management Plans; Standard Operating Procedure No. 2 - 1; Prince George Forest Region; Ministry of Forests; February 1985

Regulations

Range Regulation; BC REG 575-78
This regulation covers all of the activities under the Range Act.
The regulation describes:

1. *the advertisement procedure and content, used to offer new tenures*
2. *what applications for tenures should contain*
3. *rents and fees payable under a tenure*
4. *the forms of agreement used to combine private land with Crown range*
5. *the requirements parties involved in a transfer must meet*
6. *the proof of ownership and tagging requirements for livestock on Crown range*
7. *the procedure used to sell off seized livestock*

Manual

Range Management Manual; Ministry of Forests; currently under review

Miscellaneous

Guidelines

Guidelines for a District Public Awareness Program; Mountain, B.; Ministry of Forests; 1986

Guidelines for Forestry Extension; Bunnell, P; FRDA Report No. 46; Ministry of Forests, Forestry Canada; 1988

Public Involvement Handbook; Information Services Branch; Ministry of Forests; 1981

Appendix A

Fisheries Forestry Wildlife Guideline Committees

1. Provincial Erosion Control
2. Provincial Road Standards
3. Interior Forest Harvesting Council
4. Clearcutting and Harvesting Guidelines
5. Terrain Mapping Standards
6. Silvicultural Systems Working Group
7. Coastal Fishery Forestry Wildlife Implementation Committee
8. Coastal Fishery Forestry Guideline Technical Committee
9. Coastal Fishery Forestry Guideline Training Committee
10. Coastal Planning Guideline Committee
11. Coastal Grizzly Bear Research Advisory Committee
12. Fisheries Forestry Interaction Program
13. Carnation Creek Working Group
14. Coastal/Interior Watershed Workbook Committee
15. Mountain Caribou Integrated Wildlife Forestry Committee
16. Wildlife Tree Committee
17. Marbled Murrelet Recovery Team
18. Spotted Owl Recovery Team
19. Coastal Biodiversity Guidelines
20. Okanagan Timber Harvesting Guidelines
21. Cranbrook Forest District Riparian Management Guidelines
22. Pine Martin Forest Harvesting Guidelines
23. Interior Fisheries Forestry Wildlife Technical Committee
24. Interior Fisheries Forestry Wildlife Landscape Committee
25. Interior Fisheries Forestry Wildlife Implementation Committee
26. Interim Regional Timber Harvesting Guidelines of the Interior Portion of the Prince Rupert Forest Region
27. Forest Site Degradation and Rehabilitation Committee

ECONOMIC AND ENVIRONMENTAL IMPACTS OF A PROPOSED FOREST STEWARDSHIP CODE

A STUDY FOR THE

BRITISH COLUMBIA FOREST RESOURCES COMMISSION

By

Bowell Consultants Ltd.

May 29, 1992

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SECTION I INTRODUCTION AND TERMS OF REFERENCE

The Need for a Forest Stewardship Code

1. In the Forest Resources Commission report "The Future of Our Forests (April 1991), the Commission concluded that the intensive, integrated management of the forest for all values required "a single, all-encompassing Code of Forest Stewardship".

2. In January 1992 The Minister of Forests, the Honourable Dan Miller, stated that the objective of the Code is to sustain B.C.'s forests and jobs by ensuring environmentally sound forest practices and a healthy working forest.

3. The Minister recently requested the Forest Resources Commission to address several issues respecting the Code, including "the economic and environmental effects of the Code".

Land Use Planning and Forest Land Management

1. One major area of public debate is forest land use planning. This subject is excluded from the scope of this study. It is currently under study by the Commission on Resources and Environment, headed by Mr. Stephen Owen.

2. A second major area of debate is the controversy over the way certain forest lands are managed, which is commonly referred to as "forest practices". The proposed Code will deal with forest land and forest resource management issues.

While the "Forest Practices Code" is the title initially used, a broader alternative title could be the "Forest Stewardship Code" to emphasize the broad responsibility of forest management. This new title has been adopted for this study.

Definition of a Forest Stewardship Code

1. The Commission accepted this definition - a Code is "a systematic collection of statutes, a body of laws so arranged as to avoid inconsistency and overlapping".

2. Present forest management practices have developed out of:
   - silvicultural and logging practices
   - guidelines
   - legislation
   - regulations
   - prescriptions, enforced through contract or licence agreements

3. All of the above could be included in the Code, depending on the purposes and administration of the Code.

4. One forestry company has proposed the following definition of a Forest Stewardship Code:

> "A forest Stewardship Code can be defined as: a clearly specified guide to forest operations which explains, in simple terms, the intent of the regulatory requirements. A Code defines the standards by which individual performance is audited and reported. A Code is intended to be a dynamic document which will evolve in response to new research knowledge and changing public desires and expectations.
>
> A Code in not meant to be either a direct or indirect means to address issues such as land use allocation or Native Indian land claims nor is a Code in itself a means of additional enforcement capability. These issues must be addressed by separate Government initiatives such as the proposed provincial land use strategy and the range of regulations, contract conditions and forest policy that is currently in place."

Objectives of the Code

1. One statement of objectives is:
"To change the way the B.C. forests are managed, to achieve enhanced stewardship by the intensive, integrated management for all values on the "largest land base possible".

2. Other stated objectives are:

(a) "The forests of B.C. will provide for the economic, environmental, social, and spiritual well-being of all British Columbians through successive generations" (The Future of our Forests, Page 8).

(b) The intensive, integrated management for all values requires "a single all-encompassing Code of Forest practices".

(c) The Code would be an integral part of the government's land use and resource planning process.

Principles of a Code

1. The very extensive nature of the many principles considered as required for a Code could result in a system that is too detailed, overly complex, uneconomic, and unworkable. In attempting to satisfy all concerns, the Code could end up satisfying none. A list of principles proposed by the Commission is in Appendix "A".

2. A complete list of all the subjects covered by the Code is not available as yet. It is stressed by forestry managers that all specific requirements of forestry and logging stewardship cannot be spelled out in detail and still be usable, practical, and achieve the desired objectives.

Terms of Reference

The terms of reference for this study, given to Bowell Consultants Ltd., are stated as follows:

Economic and Environmental Impacts of a Proposed Forest Stewardship Code (FSC)

The consultant is requested to analyze and report on the following questions by May 29, 1992:

1. What is the impact of a continuation of the status quo (i.e. no Forest Stewardship Code) on international demand for B.C.'s forest-based industries, such as forest products and tourism?

2. Would the proposed FSC help mitigate the effects identified in a continuation of the status quo?

3. What administrative and other costs are incurred by government agencies and the forest products industry in the planning, approval, and monitoring of current timber harvesting practices?

4. Would the proposed FSC reduce these costs and would it affect the distribution of these costs between the various players?

5. Would the suggested audit procedure provide sufficient incentives for licensees tc go beyond the regulated minimum standards?

6. Is there a relationship between the administrative costs and the level of environmental protection?

Scope of the Study

1. A list and a definition of specific Forest Stewardship Codes has not been completed as yet, and the methods of implementation, monitoring, administering, etc. have not been spelled out. In view of this, the consultant has been asked to analyze at this time something that is a proposed tentative program only, and not precise or structured or definable. The analysis therefor has had to be general and subjective, and based on the broad assumption that the Code will embody current forest management and stewardship practices, not future or re-defined practices. Of course current practices vary among forest regions and among companies, and are constantly changing. However, an attempt has been made to analyze the economic and environmental impacts of current practices of forest management, despite the lack of a precise definition of the subject being analyzed.

2. There was not sufficient time available to initiate new grass-roots analysis of the questions raised. Extensive enquiries were made to obtain as much resource data as was already available, but no new detailed research could be undertaken.

3. For purposes of this study, the environmental and economic impacts of the Code as applied to public forests lands only, will be assessed. There will, of course, be impacts on private land holders and other users, but these are beyond the scope of this study. Also references will be made to grazing lands, but this area did not receive study.

4. The impacts of current procedures of monitoring forest practices, done by both government and industry, are included in this study.

5. The impact of a new process of independent auditing is not included, as the terms of reference of such independent auditing have not been defined as yet.

6. Any new administrative costs of government and industry programs required to meet new future requirements caused by the establishment and implementation of the Code were not studied, as the scope of these proposed new programs has not been defined.

7. The impact and costs of any new future organizations could not be estimated, and are not included. Examples, as proposals only, are:

- a new proposed Ministry of Renewable Natural Resources
- a new Forest Resources Corporation
- new community forest resources boards
- a new forest stewardship board.

Structural Elements - Key Options for Code Development

1. One option does not favour new consolidated detailed legislation of the Code, but enabling legislation to provide overall objectives, with regulations tailored to fit local requirements. This is the approach used in Tasmania.

2. Another option favours the regulations of the Code according to objectives, and not according to a detailed list of activities. This would give a results-oriented Code rather than a process-oriented Code.

3. There is no agreement as yet by government as to which of the several available methodology options will be adopted. This study assumes that government will adopt the most practical approach that will secure optimum results achievable by industry at minimum cost to government and industry.

Environmental Concerns

1. This study assesses the cost impacts of environmental regulations on the costs of the forestry industry. The study assumption is that the industry is meeting the requirements of governments respecting the environment, as required to protect the environment. The study does not analyze the effects on the environment of industry compliance, as this is beyond the scope of this study.

2. The study does analyze the impact of environmental expectations and activities on the international demand for B.C. forest products and tourism.

3. The study deals only with forestry and logging, and not with the environmental concerns of mills.

SECTION II EXECUTIVE SUMMARY

Terms of Reference

1. The Forest Resources Commission report "The Future of Our Forests" (April 1991) concluded that the intensive, integrated management of the forest for all values required "a single, all-encompassing code of forest practices"

2. The Commission asked Bowell Consultants Ltd. to study the economic and environmental impacts of a proposed forest practices code. The terms of reference are stated on Page I-3.

3. As the study progressed, the Commission advised that the title "forest stewardship code" provided a better description of the forest stewardship activities of the Ministry of Forests and of industry. This new title has been adopted for this study.

Section III International Demand and the Forest Stewardship Code.

Summary Regarding Forest Products in Export Markets

1. The consensus among B.C. exporters is that a continuation of the status quo is not acceptable in the international market place. The forest industry is experiencing a continued erosion of its credibility and of its customer support.

2. The restoration of its credibility is almost wholly a matter of public perception and credibility that can only be restored by an effective public education campaign that will convince the many publics concerned that the B.C. forest industry is maintaining sustainable forestry with sound environmental, forest management, and multiple use practices.

Summary Regarding Tourism

1. There appears to be no evidence that the status quo of forestry practices has a measurable adverse effect on tourism of foreign origin.

Section IV Requirements for a Forest Stewardship Code

Summary

1. The code would help to mitigate the adverse effects identified in world markets due to a continuation of the status quo providing:

(a) the code was a significant factor in assisting in the achievement of enhanced forest practices that met sound environmental standards, that did not reduce the ability of B.C. forest products to meet world competition and that won increasing support of publics and customers in B.C. and in export markets
(b) the industry mounts an effective and successful auditing, certification and general public education program to win support of customers and publics.

Section V Current Costs of Forest Stewardship Activities

Summary

1. The administrative and other costs relating to present forest stewardship practices incurred by the industry and the Ministry of Forests have been estimated from cost accounts and specific studies to total about $1.5 billion per year.

2. In addition to this, there are many added costs now incurred by industry and various publics, organizations, task forces, commissions, etc. that are being funded in part as a result of the current public debate over the issues of environment and forest stewardship.

3. Many additional future costs, such as the future costs of establishing a forest stewardship code, an independent audit, and a public education campaign in world markets, have not been estimated as yet.

4. The direct costs of forest stewardship total $1.5 billion per year. Adding non-direct costs, not estimated as yet, would bring this total to at least $2 billion. There is no funding available, by government or industry, for any added costs involved in the development of a forest stewardship code. These costs must in fact be reduced, as B.C. forestry costs now exceed major competing areas - see Section IX.

Section VI Potential Cost Benefits Of A Forest Stewardship Code

Summary

1. There will be increased costs for the MOF and for industry, unless vigorous and efficient steps are taken to ensure all the potential benefits of the Code are maximized. If this can be done, MOF costs should decline. Industry costs will increase, but can be more than offset if the industry can use the customer confidence and environmental benefits of Code adherence to make substantial gains in the market place. The industry is losing the battle of public opinion in both B.C. and in major markets. This must be turned around. There are great benefits in winning public recognition that the industry practices responsible environmental stewardship.

2. Much more study is required to determine whether the benefits of spending $2 billion plus per year are justified.

3. A potential major benefit of the Code, as part of an enhanced silviculture program, would be a gradual increase in the AAC, as forest growth exceeds depletion.

Section VII Impacts Of The Audit Procedure

Summary

1. The suggested audit procedures should provide sufficient incentives, and penalties as necessary to ensure industry meets minimum standards.

2. The audit procedures should be designed and implemented in such a way as to provide incentives for licensees to go beyond the regulated minimum standards, whenever the benefits of enhanced forestry stewardship and reasonable environmental requirements outweigh the added costs.

B.C. does not have enough economic resources to spend scarce resources on environmental enhancement that exceed the benefits of such expenditures. Also B.C. does not have a sufficient margin of superior economic competitiveness in world markets to support expenditures that weaken B.C.'s international competitiveness.

Section VIII Forest Stewardship Costs And Environmental Protection

Summary

1. The level of environmental protection is enhanced by the forest stewardship costs that -

(a) protect and enhance the physical forest and its physical environment - see "First Level".

(b) relate to enhanced direct public benefits, such as recreation - see "Second Level".

2. The "Third Level" and "Fourth Level" of costs have intangible benefits, such as visual and aesthetic benefits. Many activities of modern society detract from visual aesthetic appeal. These costs are not generally considered by many publics as essential to enhance the physical environment. Rigorous cost-benefit analysis could help to establish whether these costs of "environmental transfer" have benefits for the public that exceed the costs. Can B.C. afford to create more parks out of a commercial forest land base that has been steadily diminished over recent years?

3. The "Fifth Level" of costs, for administration and public relations, do not enhance the level of environmental protection. These costs require very large amounts of financial resources that would be much better spent on direct enhancement of the physical environment.

4. It is obvious that a forest stewardship Code will increase administrative costs. Comments are made in Section VI about mitigants to increased costs, and benefits from increased costs.

5. Great care will have to be taken, in developing a Code, that the extra costs do not outstrip the benefits, as the whole forest stewardship Code program could become counter-productive.

Section IX Forest Stewardship Costs And International Competition

Summary

1. B.C. has lost its competitive advantage, in world markets, of low cost logs. In 1990 the B.C. Coast had the highest cost of logs delivered sawmills, compared to the six largest competing regions in North America.

2. Criticisms of B.C. logging practices have stirred up public opinion in world markets to the point where implementation of a forest stewardship Code, and a public education campaign, are considered necessary to restore the credibility of the B.C. forest industry in world markets. Despite the $1.5 billion now spent by the B.C. government and industry on silviculture and environmental responsibility, very large new amounts will have to be spent on code development, auditing, on international certification, and public education.

3. Neither the government nor industry has any surplus capital to spend on these programs. The cost of logs in B.C. is now too high, considering the high costs of delivery to main markets.

4. The new programs will have to be done slowly, thoroughly, and frugally, with a bare minimum of extra cost burden for industry, and with a reduction rather than an increase in the cost of the Ministry of Forests and in forestry administrative cost of industry.

May 29, 1992

Gary Bowell
President
Bowell Consultants Ltd.

SECTION III INTERNATION DEMAND AND THE FOREST STEWARDSHIP CODE (FSC)

General

1. This study has been asked to analyze and report on the following question:

"What is the impact of a continuation of the status quo (i.e. no forest stewardship code) on international demand for B.C.'s forest-based industries, such as forest products and tourism?

2. This question has been analyzed by addressing the following key issues:

- The impact of the status quo on the environment related to the forest industry
- The impact of the status quo on international markets for -
  (a) solid wood products
  (b) pulp and paper products
  (c) tourism

Present Forest Stewardship Practices

1. The scope of this study does not include an analysis of the impact on the environment of present practices of forest management, of silviculture and of harvesting. This has been the subject of many studies, and will be addressed again by the Commission on Resources and Environment (CORE) headed by Mr. Stephen Owen.

2. The Ministry of Forests (MOF) and the forest industry has for many years been required to protect the forestry environment with respect to all substantive issues of preservation and renewal of the resource and the avoidance of environmental damage to fish, wildlife, and other multiple uses. Replanting or natural regeneration has been a long-term policy of most major forest companies. All TFL tenure holders have been required by law and by MOF regulations to secure regeneration on all areas logged, again going back to the 1950's. The MOF was responsible for ensuring the renewal of the forests. Some Forest Licence tenures, mainly in the interior, were not satisfactorily restocked, due to the MOF not having the necessary funds or seedlings to do the job.

3. Laws and regulations of federal and provincial governments have for many years mandated the protection of fish and wild life and many other multiple use and ecological values, on a gradually increasing scale, as public expectations increased.

4. The responsibility for carrying out silvicultural and other forest management requirements was changed in 1987, whereby the MOF retained the responsibility for mandating all key forest management practices, but the programs and costs would be the sole responsibility of industry.

5. The gradual enlargement of government requirements relating to forest management, to competing land use claims, to public involvement, to dispute resolution of native land claims and confrontational environmental activism, have resulted in a regulatory and environmental burden that can only be described as excessive. The report of the Forest Resources Commission - "A Forest Practices Code Options Paper - April 1992" lists in Appendix 3, five pages of FP Code regulations, acts, guidelines, etc. currently in place. A final detailed list is forecast to take a monumental number of man days to complete. Appendix "B" shows an incredibly long list of post 1987 regulation burdens.

6. The cost of carrying out all forestry practices currently required is excessive in dollars and in supervisory and management time. These costs seriously reduce the competitiveness of the B.C. industry in world markets. These issues will be assessed in Section V.

7. One of the overriding problems of forest management in B.C. is the failure of government, over at least 30 years, to give the MOF the strategic policy responsibility, or the funding, it required to meet its responsibility to maintain and enhance the health, productivity, and growth potential of the forest. Social programs and other key voter issues received priority. Year after year, the MOF could not get the extra funding required to vigorously reduce the backlog of not-satisfactorily-restocked (NSR) crown land, as one example. The phrase, "The trees do not vote" is common in B.C.

8. After 1982 the MOF staff was significantly reduced. Futher changes after 1987 reduced the efficiency of the MOF to establish policy and monitor the results of industry's performance in silviculture and forestry stewardship. Experienced observers say that the committees and task forces have proliferated to the point where MOF managers do not have the time or authority to manage effectively. This same problem of excessive administrative overload amid conflicting special interest groups has reduced the effectiveness of industry forestry management. The industry claims it has lost the "freedom to manage" to agreed standards.

9. Two other major problems have developed. The industry had severe financial losses from 1981 to 1985, and again in 1990 and 1991. At the same time, very large capital expenditures for environmental protection projects, exceeding $1.5 billion in '91-'92 are claiming first priority to available cash flow. There is no industry money available for increased expenditures on protecting the environment or on added burdens relating to forest stewardship codes. While this study deals only with forestry issues, the company funding available for added forestry expenditures has been depleted by requirements for added environmental expenditures in both the forests and the mills.

10. There is also no added money available to improve the performance of the MOF.

Current Situation in World Markets

1. Many sincere environmentalists work for sound silvicultural objectives. Many environmental activists, however, have targeted the forest products industry in order to advance their power base and partisan strategies. They have always needed a new "whipping boy" to win media exposure, support of the uninformed and win escalating public recognition and financial support.

Whales and seals became old hat. Dioxins from pulp mills, clear-cutting, destruction of tropical forests, planted forests which allegedly threatened bio-diversity, unsustainable harvesting and alleged "environment-destroying practices", became the new targets or "crusades" of many environmental activists.

2. To quote a Greenpeace co-founder - "The secret to D. McTaggart's success is the secret of Greenpeace's success: It doesn't matter what is true, it only matters what people believe is true. You are what the media define you to be. Greenpeace became a myth, and a myth-generating machine."

3. In the opinion of many experienced and knowledgeable observers of the industry and of the B.C. economy, a small group of environmental activists are a machine for generating myths and falsehoods, for generating money, power, and a partisan agenda, with very little to do with the enhancement of values from forestry for the citizens of B.C. This environmental myth-making machine has a dark under-side that is already reducing the values from forestry for B.C. citizens.

4. During the last 40 years, the ability of B.C. to manage its forests and its forest products industries, and to contribute to the Canadian economy, has attracted investors from around the world. It has also attracted long term loyal customers throughout the world.

Recent data shows Canada has a major role in serving world importers with 51% of lumber imports, 32% of market pulp imports, and 59% of newsprint imports. B.C. was a major factor in all of the above exports, and has a greater stake in maintaining and expanding forest products exports than any other province.

5. Environmental activists have mounted major public campaigns against B.C. in B.C.'s main markets - in Europe especially, and increasingly in Japan and the U.S. An early major target was chlorine bleaching of pulp, producing a hitherto undetectable amount of dioxins. The major cause of dioxins is motor car exhaust, the second is the burning of municipal waste, with pulp mills down around the 8th or 9th cause. But the myth was exploited in the media, and public opinion has now forced over two billion $ in capital to be spent to remove a risk of which there are no documented reports of one victim to date.

The U.S. Environmental Protection Agency recently down graded the health risk of dioxins. The World Health Organization has set new daily intake limits that are 1600 times greater than previously allowed!

6. The market pulp industry now concedes that the public information battles over chlorine bleaching have been lost. Industry is proceeding with new processes to eliminate chlorine bleaching, at tremendous capital cost, and higher operating costs.

7. To advance the environmental activists public media campaigns, a number of new targets have been found. The following headlines from Europe illustrate this -

- "Greens fail to block timber ship" (carrying tropical hardwood).
- "Friends of the Earth are polling in its battle to enforce a boycott of tropical timber"
- "Earth First activists picket B.C. House"
- "Greens mount Tilbury picketing"

8. Customers of B.C. forest products are facing a number of campaigns to persuade or force them to stop buying B.C. products. Some examples of these unproven and destructive charges are:

. B.C. has only 20 years of old growth forest left
. B.C. is the Brazil of the north, and is destroying its forests
. A planted forest in B.C. is a "monoculture" which degrades the ecosystem
. Clear cutting is destroying the environment
. B.C. forestry is destroying endangered species.

9. Major newspaper articles, daily and weekly, and major TV programs are constantly spreading the myths of the Greens.

10. Some solid wood products in Europe have green "stickers" attached, implying B.C. lumber is not "environmentally friendly".

11. Some building authorities, architects, and builders are being pressured to avoid specifying wood.

12. Recently the Greens targeted the largest German paper company, asking Feldmuhle's customers to send a clipping to the company to demand it stop buying pulp from Brazil and from B.C. Feldmuhle has received thousands of these clippings, and is very anxious to hear from B.C. pulp suppliers as to the answers to the Green charges.

13. A new pulp buyer in Germany has raised with the B.C. supplier his concern about the sustainability of B.C.'s forests.

14. One major U.S. lumber buyer, Home Depot, has advertised it is stressing "green" lumber and other building materials.

15. Japanese buyers are showing increasing concern about the charges of greens relating to the environmental impacts of both pulp and lumber produced in B.C.

Summary Regarding Forest Products in Export Markets

1. The consensus among B.C. exporters is that a continuation of the status quo is not acceptable in the international market place. The forest industry is experiencing a continued erosion of its credibility and of its customer support.

2. The restoration of its credibility is almost wholly a matter of public perception and credibility that can only be restored by an effective public education campaign that will convince the many publics concerned that the B.C. forest industry is maintaining sustainable forestry with sound environmental, forest management, and multiple use practices.

Tourism

General

1. The study has been asked to analyze and report on the impact of continuing with present forest practices (i.e. with no forest stewardship code) on tourism.

2. The question of the relationship between tourist visits to B.C. and forest practices has not been examined by adequate studies. Despite claims by some that forestry has a detrimental affect on tourism, the historical data shows that as annual harvests of timber increased, so too did tourist visits to B.C.

3. The statistics from the Ministry of Tourism (MOT) are not helpful. A "tourist" is anyone who has travelled 50 miles and stayed overnight. But this could be any B.C. person who travels for business, family, pleasure, etc., plus the tourists of foreign entry.

Foreign Tourists

1. The Ministry of Tourism has stressed that tourism is a global market place. Tourists often form preferences by "word of mouth" reports. Unfortunately, no surveys or reports are available that would identify the comments of visitors leaving B.C., or the number of visitors who were planning or had made a return trip to B.C.

2. Comments stressed that tourists "vote with their feet" and can change their plans very quickly if reports on B.C. did not meet their expectations.

Many European, Japanese, and U.S. tourists express great preference for a "clean, green, and safe environment". The slogan "Super, Natural B.C." stresses that we have an abundance of these three requirements.

3. No surveys or reports were made available by the Ministry of Tourism to identify appreciable impact from -
   (a) foreign tourists who cancelled plans to visit B.C. in order to make a political statement of protest against B.C. logging practices.
   (b) touring and cruise boat operators who avoided B.C. because their clients were upset about B.C. logging practices.

Statistics on Visitors and Forestry

1. Enquiries at the Ministry of Tourism provided no studies or statistical records that could provide insight on the impact on tourism of current forest practices. Discussions on opinions, and anecdotal viewpoints showed a wide divergence on the subject.

2. One comment on a recent meeting in the U.S. on Tourism stated that questions were raised about clear-cutting in B.C., and about the importance of tourists enjoying beautiful scenery.

3. MOT also reports that more than half of all tourism expenditure occurs in the Lower Mainland and on Vancouver Island. So it appears that only half of the "Tourists" go out to the other B.C. areas where the bulk of logging occurs.

4. A report from a tourism specialist states that "we do not have any honest observations of the relationship between foreign-origin tourism and forest practices, because we do not have any honest measure of foreign-origin tourism."

5. Several studies, including the Valhalla Wilderness study and an AIM Resources study (Jan. 1990), confirm that tourism does not equate with wilderness and untouched resources. Tourism outside the bigger cities is stimulated by good transportation, recreation facilities, lodging and meals, scenic points of special interest, and other amenities associated mainly with developed areas. The AIM report concludes that the "wilderness" and "primitive outdoor" group make up between 10 and 20% of tourists, but no light is given on whether these tourists enjoy the use of logging roads and the amenities of small forest industry towns.

6. The following comment could be typical of many hunting and fishing and wilderness visitors - "North Moresby Island is easily accessible, whereas South Moresby isn't. North Moresby has been heavily logged. There's a lot of clear-cut, but mostly you see regenerating forest that has a properly wild look to it" (From B.C. Outdoors, July 1988).

7. Tourism Canada has found that a "wilderness image" is not a strong attraction for tourists to Canada (Globe and Mail, March 13, 1990). A report "Camping Trends in B.C." shows a decline in campsite use throughout the 1980's.

8. A reading of B.C. tourism magazines over the years indicates that most B.C. outdoorsmen enjoy pursuing recreation activities ("Tourism") where they can gain access to them, and do not necessarily find evidence of other resource industries offensive.

9. A Clayton Resources report of Feb. 1991 reports a minimum of 3% of non-residents come to B.C. solely for its back country or wilderness values.

10. While this study could consult only a few experts on tourism, there is virtually no evidence to support a hypothesis that forest practices are having an adverse impact on tourism of either foreign or B.C. origin.

Summary Regarding Tourism

1. There appears to be no evidence that the status quo of forestry practices has a measurable adverse effect on tourism of foreign origin.

SECTION IV REQUIREMENT FOR A FOREST STEWARDSHIP CODE (FSC)

General

1. The question to be analyzed in this section is as follows:

> "Would the proposed FSC help mitigate the effects identified in a continuation of the status quo (i.e. continue present forest management practices but with no FSC)"

2. To mitigate the effects outlined in Section III, the activist and media charges of environmental misdemeanors have to be countered by the industry continuing to improve its performance in meeting all environmental standards, and by a public education campaign that convinces B.C.'s customers, and in turn their customers, that B.C. products meet approved environmental standards.

3. The consultant recommends that a "Forest Stewardship Code" (FSC) should be developed that meets these main criteria with respect to international customers:

   (a) having the necessary credibility to satisfy the concerns of the B.C. public and our international customers. One of the main reasons to have a credible Code is that it will strengthen the industry's export marketing.

   (b) performance to meet Code standards must be audited by a competent independent auditor. Auditing cannot be perceived to be fair and unbiased if it is done by industry or by the MOF. Also, in order to command complete public credibility, the independent auditor cannot be paid by industry, and must be paid by government.

   (c) the auditing process must be as accurate as possible.

   (d) the auditing must be presented in a manner the public can understand, with easy public accessibility.

4. The consultant recommends other Code requirements:

   (a) one that focuses not on "process" but on "results" of licensee activities relative to previously agreed commitments and standards.

(b) the Code and the management structure must be effective in achieving the agreed goals of performance, and therefore industry should be a partner in the process of managing the Code over time.

(c) the Code and the management structure must be efficient and wherever possible, effect cost-savings and reductions in existing bureaucracies.

(d) a system of voluntary certification should be simple and should address the minimum Standards of Performance required under the Code.

Summary

1. The Code would help to mitigate the adverse effects identified in world markets due to a continuation of the status quo providing:

(a) the Code was a significant factor in assisting in the achievement of enhanced forest practices that met sound environmental standards, that did not reduce the ability of B.C. forest products to meet world competition and that won increasing support of publics and customers in B.C. and in export markets.

(b) the industry mounts an effective and successful auditing, certification and general public information program to win support of customers and publics.

2. The adoption of practices of enhanced silviculture performance would mitigate the impact of factors which reduce the AAC, and should result, in time, in increases in the AAC when forest growth exceeds removals.

SECTION V CURRENT COSTS OF FOREST STEWARDSHIP ACTIVITIES

General

1. The question asked in this section is as follows:

> "What administrative and other costs are incurred by government agencies and the forest products industry in the planning, approval, monitoring and auditing of current timber harvesting practices?"

2. An analysis of cost sectors of government and industry show that, for purposes of this study, costs can be allocated to two main categories:

- Category A — All silvicultural and forestry costs relating to "regulatory burden" costs, or to activities required under forest stewardship responsibilities to meet current forest practices regulations.
- Category B — Standard or traditional logging costs and cost associated with harvesting transactions such as valuations, stumpage, scaling, etc. A rough allocation puts 80% of road building and maintenance costs into this category.

For purposes of this study, all costs of Category A above will be referred to as "Study Costs" or as "Forest Stewardship Costs"

Forest Industry - Forest Stewardship Costs - Category A

1. Costs of major licensees, of small logging businesses, and of the Ministry of Forests (MOF) have been developed by the MOF for presentation at the Canadian-U.S. lumber duty negotiations. These costs are based on the MOF fiscal year 1990/91, and are summarized in the following sections. Costs have been pro-rated to "Study Costs" as required.

Estimated Yearly Forest Stewardship Costs
(By Ministry of Forests)

I	Major Licensees - Category A only	Cost per Year ($000, rounded)
1.	basic silviculture	$120,710
2.	incremental silviculture	1,520
3.	road/bridge construction & maintenance - 20% of total	71,330
4.	forest protection	7,370
5.	pre-harvesting costs (see Glossary)	37,920
6.	Total Cost	$238,850
7.	Total Cost on 62.8 million M3 logged or (1 M3 = 1 cubic metre)	$3.80 per M3

II Small Companies in the Small Business Forest Enterprise Program - Category A Only

	Cost per Year ($000, rounded)
1. basic silviculture	$27,370
2. road/bridge building & mtnce - 20% of total	8,130
3. forest protection	2,130
4. planning & dev't, pre-harvesting costs	3,950
5. Total	$41,580
6. Total Cost on 7.1 million M3 logged	$5.86 per M3

Ministry of Forests - Forest Stewardship Costs - Category A Only

1. These costs are summarized below with rough estimates of Category B costs and Small Business Forest Enterprise Costs deleted.

	Costs per Year ($000, rounded)
1. basic silviculture ($100 milion plus shared programs)	$236,260
2. road/bridge building & mtnce 20% of total	3,880
3. forest protection - for 100% of the forest lands	115,000
(MOF budget reported $62 million spent to protect "productive forest land" only or 51% of the total forest and range area of responsibility of the MOF. The total is adjusted to apply to 100% of the area)	
4. planning & dev't, pre-harvesting costs	47,550
5. Total	$402,690
	or $6.01 per M3

Notes
1. The total expenditure of the MOF in fiscal 1990-91 was $564,499,000 of which $402,690,000 is estimated to be Category A or study costs)
2. The volume harvested on crown land was about 67 million M3 (the total of 69.9 MM includes private land).

Summary - Ministry of Forests Estimated Total Forest Stewardship Costs

	Expenditures of	$000	Average$ per M3 Spent By Each Group
-	Major Licensees	$238,850	$ 3.80
-	Small Companies in the Small Business Forest Enterprise Program	$ 41,580	$ 5.86
-	Ministry of Forests	$402.690	$ 6.01
	Total	$683.120	$10.20, average for 67 million M3 of crown lands harvested

Note Above costs have been pro-rated between Category A and Category B, as required, by Bowell Consultants.

Variations in Forest Stewardship Cost Estimates

General

1. There are large variations in any estimate of forest stewardship costs, depending on the many variables of terrain; ecosystems; company philosophies; physical constraints; interpretations of the varying definitions of forest stewardship and of regulations, etc. For example, a new long line yarding machine may be operated to reduce costs, to reduce damage to the environment, and to access wood not formerly economical.

2. Most companies are finding an increasingly heavy burden of regulatory costs in recent years as they struggle to keep up with new administrative procedures, delays, requests for revision of plans, etc. Appendix B shows a sample list of regulatory burdens, totalling estimated costs of $12.59 per M3, 1990-91 costs.

3. Time did not allow the response of companies to a detailed cost questionnaire. Some companies had done studies on the costs of regulatory requirements, which is not as broad a concept as the cost of a forest stewardship Code.

4. One company study reported costs of recovering uneconomic wood, $3.00 per M3, plus added costs of small cut blocks and logging dispersion and other requirements of $5.50 per M3. This $8.50 would have to be added to standard silvicultural costs of $3.80 (MOF data) plus H.O. forestry costs of $.25, to total $12.55. If uneconomic wood was not recovered the AAC could decline. The costs of $3.80 on page V-1 did not include the other costs listed in this paragraph.

5. Four recent estimates showed increases in regulatory costs from 1986 to 1992 of $2.75, $3.28, $3.97 and $4.07 per M3 respectively. An earlier report in 1987 estimated forest stewardship costs of $10.00 per M3. If this $10.00 is added to the four recent estimates of increased costs, a range of $12.75 to $14.07 per M3 is obtained. A median of $13.41 per M3 would appear reasonable, based on estimates obtained for this report.

6. In view of the importance of knowing as accurately as possible the impact of present costs of forest stewardship practices, it is recommended that an in-depth study be undertaken to define the kind of costs that should be included, and then to estimate as accurately as is feasible all forest stewardship costs. The importance of this is shown in the table in paragraph seven.

In this table the Small Business and MOF data used is from the summary, page V-2. The Large Licensee costs are adjusted as follows:

(a)	the estimated median cost are - (paragraph 5 above)	$13.41 per M3
(b)	add 7% of $13.41 for environmental costs not pro-rated or included in the specific forest and silviculture functions, listed on page V-1, bottom table -	0.94
(c)	add for inflation to '90-'91 data 2.7% of (a) and (b) -	0.38
	Total	$14.73 per M3

7. Forest stewardship costs as recorded for all B.C. are estimated to be in the order of $1.5 billion - see below.

	Million M3	$ Costs Per M3	Million Per Year
(a) Large Licensees, adjusted	60	14.73	987
(b) Small business Forest Enterprise Program	7	5.86	41
(c) Ministry of Forests			403
(d) Total, Crown Lands Only, Estimated Rounded to $1.5 Billion, as no additions to (b) and (c) for inflation or for costs not included in MOF estimates.			$1.431

Cost Factors Not Included in This Study

1. The forest stewardship costs of $1.5 billion per year could be considered "specific" or "hard costs", based mainly on recorded cost data. The following are intangible costs not studied as yet or not operative as yet, but should nevertheless be noted as added costs that should be factored in to the costs of a forest stewardship Code program even though the dollar amounts are not available.

Additional Costs Attributable to Forest Stewardship Activities

1. The costs listed above do not include a wide variety of costs that could or should be included, if the components of a Code were established, the ground rules were clarified, and time and funding were available to do yet another comprehensive cost study. Some of the costs listed below are partly Category A and partly Category B.

2. A small sample list of added costs generated by stewardship activities and not included above is shown below:

- amortization of extra capital required for added roads and bridges, for nurseries, fire protection, etc.
- extra division office and overhead costs of people involved in stewardship activities, including many contractors
- added working capital required
- expenditures on private lands and native lands - considered to be a part of the overall B.C. forestry industry

Costs of Auditing, Certification, Etc.

1. An independent audit of compliance to a forest stewardship Code has been considered by the B.C. Forest Resources Commission and by industry. The structure and scope of the audit has not been recommended as yet, so no estimate of added costs can be given at this time. There will be substantial added costs involved, e.g.

(a) cost of independent audit
(b) added internal costs of companies, including training, co-operation with auditor, review of results, etc.
(c) added internal costs of MOF
(d) added cost of audit reports, hearings, proceedings respecting non-compliance, etc.
(e) substantial added costs if a certification program is adopted
(f) substantial added costs respecting education of industry employees, of MOF staff, of customers and public relation campaigns in world markets
(g) in several other jurisdictions, the creation of Codes roughly comparable to a forest stewardship Code has led to an increase of challenges from various public groups, in hearings and in the courts. The added costs and delays would be substantial.

Added Costs - Developing and Implementing the Code

1. The work and costs involved in developing the Code will be major. Industry will have to participate with government in every step of the development process. The added first year of costs will be followed by added costs of implementing the Code procedures over a period of several years. Subsequent required amendments will require added costs.

2. It is usual for added regulation to mean added costs for government and for industry. There is a tendency for government to enlarge and complicate new administrative programs. If a major effort is not made to develop a simplified, uncomplicated, effective, practical, results-oriented and industry-supported Code, the results can be safely forecast to be disastrous.

Added Logging Costs

1. No estimates are available as to the added future costs to be imposed on the logging phase as a result of a future Code. During the past 10 years there have been very heavy added unseen costs of modification to logging practices to accommodate other resource interests, introduced through "environmental" guidelines. An estimate made during the 1980's placed these added unseen costs at $10 per M3. The added cost to B.C. was about $700 million. This process of estimating major costs of $700 million without a rigorous cost-benefit analysis should be

avoided during the proposed next round of implementing a new forest stewardship Code process.

Clear Cutting vs. Selective Logging

1. It is the consultant's opinion that, if government forces a gradual departure from clear-cutting and a mandated experiment in selective logging to impose extended environmental requirements in place of silvicultural and economic requirements, the added cost would be so great that many operations would become uneconomic and close down. It is ironic that clear-cutting is mandatory in most Swedish forests. Many years ago selective logging as the norm was tried, but proved to be an experiment of very little application to Swedish forestry.

Reduction of Annual Allowable Cut (AAC)

1. In addition to all of the many major and minor regulatory requirements forcing cost increases, attention must be drawn to a major potential cost increase that will develop if the AAC is substantially reduced over the next 5 to 10 years. No estimates of the effects of this on costs have been made available. The added costs will vary by location, company, species, etc. Some mills will be forced to close down. The stumpage revenue to government will fall significantly. This factor is not a part of the cost of developing a Code, but both a cost-increasing Code and a cost-increasing reduction of AAC would push much of B.C.'s forest into being non-competitive in world markets. The question of competitiveness is addressed briefly in Section IX.

Added Costs Due Exclusions from Stumpage Appraisals

1. The MOF has excluded some cost activities from the stumpage appraisal system. One example occurs when logging is forced by the MOF to add costs to avoid "visual impairment", such as a road cut visible from the ocean. The operation of forestry is required by modern society, and forestry economies such as B.C. cannot afford to allow environmental extremism to weaken the forest industry to the point where it cannot deliver its social and economic benefits and still meet reasonable environmental standards.

Added Costs Not Included

1. A number of added costs are incurred in B.C. but not identified or reported as forest stewardship costs - examples:

   (a) costs related to forestry of ministries other than the MOF, which were not available for this study. The Ministries of Environment, Parks, Tourism, Economic Development, are examples
   (b) costs of municipalities involved in forestry
   (c) Federal government costs related to forestry stewardship in B.C.

(d) Costs relating to forest stewardship incurred by many organizations - examples:

Council of Forest Industries
Cariboo Lumber Manufacturers' Association
Interior Lumber Manufacturers' Association
B.C. Forest Alliance
B.C. Round Table
Public relations campaigns of industry and government
Various special commissions, task forces, ad hoc groups, relating to forestry

Summary

1. The administrative and other costs relating to present forest stewardship practices incurred by the industry and the Ministry of Forests have been estimated from cost accounts and specific studies to total about $1.5 billion per year.

2. In addition to this, there are many added costs now incurred by industry and various publics, organizations, task forces, commissions, etc. that are being funded in part as a result of the current public debate over the issues of environment and forest stewardship.

3. Many additional future costs, such as the future costs of establishing a forest stewardship Code, an independent audit, and a public information campaign in world markets, have not been estimated as yet.

4. The direct costs of forest stewardship total $1.5 billion per year. Adding non-direct costs, not estimated as yet, would bring this total to at least $2 billion. There is no funding reported as available, by government or industry, for any added costs involved in the development of a forest stewardship Code. These costs must in fact be reduced, as B.C. forestry costs now exceed major competing areas- see Section IX.

General Footnote

1. The main sources of estimates of forest stewardship costs available for this study were:

(a) annual cost survey of coastal logging costs of Price Waterhouse

(b) MOF estimates of basic silviculture and other related costs, based largely on (a)

(c) industry estimates of costs, developed by ad hoc studies from cost accounts that were not designed to identify forest stewardship costs.

2. The costs identified in those three sources were not based on cost codes or cost centres designed to separate ordinary logging costs from forest stewardship costs. As a result, the consultant had to look for a combination of various cost centres that would reflect a reasonable "order of magnitude" emerging from (a) and (b) above and from a number of industry estimates. While the details were not developed from precise and orderly accounting records, the results summarized on page V-4 are the best currently available.

SECTION VI POTENTIAL COST BENEFITS OF A FOREST STEWARDSHIP CODE

General

1. The question to be addressed in this section is:

> "Would the proposed forest stewardship Code reduce the costs identified in Section V, and would it affect the distribution of these costs between the various players?"

2. It is a common experience that added regulation results in increased costs both of the regulator and the regulated.

3. A general consensus of a number of companies is that the costs of the Code will add to company costs, not reduce them. One company estimates the added yearly cost to industry, excluding auditing costs, will be between $.25 and $.50 per M3, or $17 million - $34 million, depending on the complexity of the Code.

4. The following stresses the importance of establishing and using the Code in the most effective and efficient way, in the hopes of achieving optimum results and cost savings. Extract from a letter to the Minister of Forests, from an industry forest stewardship Code sub-committee -

> "Industry is a strong supporter of a Forest Practices Code and wishes to see one implemented at a timely fashion, and one that focuses on "results" of licencee activities relative to previously agreed-to commitments and standards.
>
> The Code and a process for managing the Code must, above all things, be credible to the public and to our international customers.
>
> The Code and the management structure must be effective in achieving the agreed to goals of performance and therefore, industry should be a partner in the process of managing the Code over time.
>
> The Code and the management structure must be efficient and wherever possible, effect cost-savings and reductions in existing bureaucracies.
>
> Industry's support for a Code demonstrates that industry is committed to becoming more self-policing. Consideration should be given to recognizing that several positive audits results for an operation be rewarded through the delegation of increased licencee "Freedom-to-Manage" with progressively less "how-to" direction by Forest Service Staff."

Potential Savings

1. Over recent years both the industry and the MOF have become increasingly bogged down in a quagmire of increasing regulation, third party interference, changes in policies and regulations, delays in approvals of plans for road building and logging, etc. If the Code can be the most efficient mechanism that the Ministry and industry are capable of implementing, there could be reduced costs for both the Ministry and the industry.

2. At present the Ministry of Forests monitors existing forest stewardship practices. As the Code becomes used effectively by industry, the monitoring should become more and more a responsibility of industry. There could be substantial savings for the MOF as it is relieved of monitoring activity. Certainly there will be no saving for the MOF or for industry if the MOF adds another cadre of bureaucracy to administer the Code.

3. Effective development and "selling" of the Code to all the concerned B.C. publics should greatly reduce heavy costs now incurred in confrontation with environmentalists, native land claims, etc.

4. The existence of a Code has resulted in some jurisdictions in the increase in legal challenges. Considerable thought should be given to find ways to ensure that legal disputes do not develop along with the Code. Hopefully some process comparable to the WCB process could protect both industry and government from the benefits of a Code being dissipated by the costs of legal disputes.

5. The Code, if developed and "sold" successfully in world markets, should help to mitigate against the enormous added costs involved in customer boycotts and other environmental attacks in the market place.

6. The Code will have some benefits if certain logging techniques are developed that combine environmental protection with cost efficiency. Road washouts cost money. Fighting a losing public support battle in B.C. costs money. The public, if brought onside, could co-operate with clear-cutting and insect control and many other controversial logging and silvicultural requirements.

Distribution of Forest Stewardship Code Costs
- Category A costs only (page V-4)

1. The present level of cost distribution is:

- Ministry of Forests	28%
- Industry - Major Licencees	69%
- Industry - Small Business	3%

2. If the most effective Code is established and operated mainly by industry, there is some ground to hope that MOF costs can be reduced.

3. The Code will involve extensive added activity by industry in training, dealing with auditing, more involvement with a wider number of public organizations, etc. It is only realistic to assume that industry costs will increase, offset by benefits in the market place.

4. It can be hoped that companies doing an excellent job in meeting Code requirements would have less auditing and "external involvement costs". Companies doing a poor job would attract increased costs in these respects.

5. The Code will provide ammunition to critics. Companies operating near tourist routes and recreation areas will have higher Code costs. Companies in obscure areas away from public scrutiny and concern will have lower Code costs, insofar as challenges from the public are concerned. If the Code is enforced in an equitable manner, these discrepancies should gradually disappear.

Summary

1. There will be increased costs for the MOF and for industry, unless vigorous and efficient steps are taken to ensure all the potential benefits of the Code are maximized. If this can be done, MOF costs should decline. Industry costs will increase, but can be more than offset if the industry can use the public relations and environmental benefits of Code adherence to make substantial gains in the market place. The industry is losing the battle of public opinion in both B.C. and in major markets. This must be turned around. There are great benefits in winning public recognition that the industry practices responsible environmental stewardship.

2. Much more study is required to determine whether the benefits of spending $2 billion plus per year are justified. These costs include $1.5 billion of direct cost plus indirect costs (not estimated) of more than $500 million, on forest stewardship and environmental enhancement.

3. Constructive development of a Code and of improved silviculture practices should have the benefit of increased AAC's in the future. The Vice President Logging of MacMillan Bloedel claimed, in the 1960's, that a serious program of "intensive forestry" would double the AAC of many areas, over a full rotation cycle. Several U.S. companies report substantial increases in AAC's after a long term program of "intensive forestry".

SECTION VII IMPACTS OF THE AUDIT PROCEDURE

General

1. This section addresses this question: Would the suggested audit procedure provide sufficient incentives for licensees to go beyond the regulated minimum standards?

Factors

1. The suggested audit procedure has not been spelled out, so it is not possible to assess whether it would provide incentives to go beyond minimum standards.

2. The audit procedure is essentially a "stick" to ensure compliance. If the requirements of the Code are considered too unrealistic, or onerous, or too rigid, and compliance proves to be excessively expensive, then there would be very little incentive to go beyond the regulated minimum standard.

3. If the Codes consist of detailed lists of detailed activities, they would be more specific and intrusive than "objectives based" Codes. The stick would be in practice, more onerous and costly, and incentives would be minimized.

4. If the Code is "process-oriented" rather than "results-oriented", the results of paragraph 2 would tend to follow.

5. The various levels and severity of penalties would have to be worked out to make the penalties reasonably serious to ensure compliance. The avoidance of penalties would motivate compliance, but more than this would be needed to encourage licensees to go beyond the regulated minimum standards.

Incentive Scenarios

1. Ownership and management of many companies are committed to good business citizenship, to ensuring sound silvicultural practices, to meeting environmental requirements, and to "forests forever". Most citizens are very proud of our forests and of the economic and social benefits provided by the industry. This "forestry ethic" is an incentive to exceed minimums.

2. The results of monitoring and auditing performance of Code requirements will be made public. Most CEO's will try to be among the leaders, and will do all possible to avoid the opprobrium of being cited for non-compliance, or of being fined.

3. A question has been raised as to whether a system of financial benefits could be developed whereby good performance enjoys a financial reward, and non-compliance pays a penalty rating.

The WCB has such a system. It is much easier, however, to develop a specific cost based on the number and severity of WCB accidents and resultant claims. Some infractions of the proposed Code can, in some cases, be penalized by specific fines, penalties, etc. But many of the Code requirements will be highly subjective in nature, and difficult to quantify and audit. Also the question of appeal procedures will be debated. In balance, it is considered that the questions of penalties will be sufficiently difficult, without further complications of procedures that give dollar bonuses to some companies and dollar penalties to others, based on hundreds of assessments in a "report card". Another bureaucracy to "manage" the audit is not proposed.

4. One incentive that could be developed would be to allow companies that have superior standard of performance to do more "self monitoring" and have fewer or less detailed audits. This would ensure lower costs and better use of management time and effort.

5. Another incentive would follow if the forest service formed a high regard for the performance of a company, which would benefit both the forest service and the company in their initial endeavours.

General

1. The question has been raised whether the cost of the independent public auditor, appointed by the government, and the audit or assessment process, should be paid by industry or by government.

2. During this study a number of reasons for one or the other alternative were discussed with both industry and government. The industry has stated as follows: "Independent research carried out for the industry has confirmed industry belief that the Code will be credible only if performance assessments are conducted by (independent public) auditors under contract to the Minister and independent of the Forest Service, other branches of government, and forest operators".

3. As developed in Section I and III, the most vital factor in the competitiveness of the industry is the confidence and support of buyers around the world. The point has now been reached where a Forest Stewardship Code that has high international certification and verification is necessary to secure the credibility and trust of our domestic and international customers and publics. To secure this confidence and credibility, and international certification, the industry cannot be seen to be paying for the independent public audit.

It can be argued that the industry, in the final analysis, would be paying indirectly the costs of the audit. But the international markets must perceive the certification and audit to be removed from industry direction or control. The industry cannot be seen to be paying for the audit or the main purpose of the audit would be destroyed.

Summary

1. The suggested audit procedures should provide sufficient incentives, and penalties as necessary, to ensure industry meets minimum standards.

2. The audit procedures should be designed and implemented in such a way as to provide incentives for licensees to go beyond the regulated minimum standards, whenever the benefits of enhanced forestry stewardship and reasonable environmental requirements outweigh the added costs.

B.C. does not have enough economic resources to spend scarce resources on environmental enhancement that exceed the benefits of such expenditures. Also B.C. does not have a sufficient margin of superior economic competitiveness in world markets to support expenditures that weaken B.C.'s international competitiveness. See Section IX.

SECTION VIII FOREST STEWARDSHIP COSTS AND ENVIRONMENTAL PROTECTION

General

1. The question addressed in this section is:

"Is there a relationship between the costs of forest stewardship and the level of environmental protection?"

2 For purposes of this study, the costs of forest stewardship can be divided into five categories.

First Level Costs - These are costs that are directly related to protecting and enhancing the physical forest and its physical environment - examples - regeneration, insect and fire protection, fish and wildlife protection, etc. - usually called "silviculture". These costs obviously protect and enhance the environment. "Intensive forestry" can double the yield per hectare, thus protecting both the human and social environment, and the physical environment. These costs can be termed "first level" or "resource enhancement" or "sustainable development" costs.

These costs are obviously of highest priority for a province like B.C. While most activities have obvious priorities, there are still many activities that require short and long range study, and special research projects relating to relationships between silviculture and other multiple use benefits, etc.

Second Level Costs - These are costs that are not directly associated with silviculture, or protection of fish, wildlife, etc., but are related to enhanced direct public benefits, such as recreation. They have a high priority.

Third Level Costs - These are costs that relate to the intangible benefits that special interest groups regard as paramount, such as the visual and aesthetic appeal of a forest. The public appreciates that an enhanced standard of living, with increasing economic and social benefits, requires many activities that detract from visual and aesthetic appeal - such as property development, bridges, highways, power lines, etc.

To date many British Columbians understand that continued forestry is essential. They understand that, if 1% to 2% of the commercially viable forest is unsightly for 10 years after harvesting, but is then managed and protected for the next 100 years as a green and vibrant second growth forest, continued sustainable growth of B.C.'s economic and social benefits from forestry can be achieved.

Fourth Level Costs - There are many activities demanded by special interest groups that have a very intangible or theoretical direct benefit on the physical, social, and economic health of the citizens of B.C. and on the benefits or costs of the forestry industry. Evidence is not available to show that the government policy of doubling the park lands in B.C. by the year 2000 has been subjected to intensive cost-benefit analysis.

The impact of this proposal on the forestry industry has not been revealed to, nor discussed by, public or industry groups affected by this far-reaching plan, which affects B.C's largest industry. To illustrate the problem, the number of visits of "bona-fide" tourists to the new South Moresby park has been a very small fraction of those forecast by political and special interest groups. The cost-benefit analysis relevant to forestry vs. tourism on South Moresby appears to have been deficient.

Fifth Level Costs - A large part of the costs of forest stewardship will be required for functions that have no direct benefits for the forests or for the public. Examples of these very high costs are:

(a) high administrative costs of establishing and inaugurating the Code, probably to be followed by a procedure of international certification acceptable in world markets.
   - high costs of a continuing public information campaign in world markets
   - high costs of informing and educating a number of special interest groups and the public generally, here in B.C. The "public" cannot manage forests efficiently.

Availability of Capital

1. Capital costs exceeding $2 billion have been spent recently on environmental protection in mills and forests in B.C., with no let up in sight. Billions have been spent on eliminating detectable dioxins in pulp mill discharges, with no cost-benefit analysis. Neither B.C. government nor industry has enough capital to meet all requirements being proposed for environmental purposes. It is an economic necessity that both government and industry capital can be spent only on those

environmental programs that are high priority on a sustainable development and environmental cost-benefit analysis basis.

Summary

1. The level of environmental protection is enhanced by the forest stewardship costs that -

(a) protect and enhance the physical forest and its physical environment - see "First Level" above.

(b) relate to enhanced direct public benefits, such as recreation - see "Second Level" above.

2. The "Third Level" and "Fourth Level" of costs have intangible benefits, such as visual and aesthetic benefits. Many activities of modern society detract from visual or aesthetic appeal. These costs are not generally considered by many publics as essential to enhance the physical environment. Rigorous cost-benefit analysis could help to establish whether these costs of "environmental transfer" have benefits for the public that exceed the costs. Can B.C. afford to create more parks out of a commercial forest land base that has been steadily diminished over recent years?

3. The "Fifth Level" of costs, for administration and public relations, do not enhance the level of environmental protection. These costs require very large amounts of financial resources that would be much better spent on direct enhancement of the physical environment.

General

1. It is obvious that a forest stewardship Code will increase administrative costs. Comments are made in Section VI about mitigants to increased costs, and benefits from increased costs.

2. Great care will have to be taken, in developing a Code, that the extra costs do not outstrip the benefits, as the whole forest stewardship Code program could become counterproductive.

SECTION IX FOREST STEWARDSHIP COSTS AND INTERNATIONAL COMPETITION

General

1. It is axiomatic that the sustainable development of the B.C. forestry depends on strong and increasing support of customers in world markets. This in turn depends on B.C. products being competitive in world markets, especially in costs and service and long term reliability.

2. B.C. has demonstrated that it is a preferred supplier of many forest products sold in world markets. Market pulp, newsprint and lumber are key examples of customer support that has been built up for over 80 years. But as in so many international trade endeavours, customer support must be continuously maintained, and each future shipment has to win continuing customer support on a daily basis.

3. Because export usually involves distant customers buying from distant suppliers, the number one requirement of buyers is that B.C. goods be reliable and predictable in cost competitiveness, quality, and service.

4. With most large volume export products such as lumber, pulp, and newsprint, wood or fibre costs average usually at least 40% of the total manufacturing costs. To be cost competitive requires that logs or chips in B.C. be low cost enough to enable producers to ship long distances and sell their products in competition with other world production areas that often have lower fibre costs and/or lower delivery costs. For example, the U.S. south delivers the above three key items to most world markets with lower costs than B.C. in both fibre and delivery costs.

Competitive Cost of Logs

1. The following Table IX-1 shows that the competitive cost of logs delivered to North American lumber mills was, as of December 1991, lowest for U.S. inland dimension lumber mills at $137 U.S. per FBM lumber produced. The B.C. Interior costs were second lowest at $151 U.S. Interior costs were $29 lower than the U.S. South, but this region has much lower costs of capital, marketing, and delivery to main markets. B.C. Coastal log costs were highest at $247 U.S. delivered sawmill. Coastal logs have quality premiums, but are nevertheless not competitive with the U.S. South in dimension lumber, for example.

Table IX-1

Variable Cost of Logs Delivered to North American Lumber Mills
(in 1991 $, per M FBM lumber produced)

	Logging Cost Excl Stumpage	Cost + Stumpage Cdn$	Cost + Stumpage US$	Comparison Lowest Cost is 1
U.S. West Coast Mills	$86 (US)	-	228	6
U.S. Inland Dimension Mills	83 (US)	-	137	1
U.S. Southern Yellow Pine Mills	69 (US)	-	180	3
B.C. - Coastal	238 (Cdn)	276	247	7
B.C. - Interior	145 (Cdn)	174	151	2
Ontario Mills	N/A (Cdn)	210	182	4
Quebec Mills	N/A (Cdn)	211	183	5

Source - Resource Information Systems Inc. Dec. 1991

Note - 1991 Exchange Rate 1.152 $Cdn/$US

2. Confidential reports from several companies show that Interior B.C. total delivered log costs are currently averaging between $40 and $45 per M3 delivered sawmills, whereas typical comparable Alberta log costs delivered sawmills would average $23 to $25 per M3 logs.

3. Other comparisons restricted to "Overhead and Forestry" costs show that Saskatchewan costs are about $7.00 per M3 lower than B.C. This is a very large cost increase for B.C., of $469 million on B.C. crown land harvest of 67 million in 1990-91.

4. B.C. coastal logging costs averaged about $20 U.S. per FBM lumber below the U.S. south in the 1960's, but are now about $60 to $70 U.S. per FBM lumber higher than the U.S. south. B.C.'s great long term competitive advantage of low log costs has been dissipated. The previous advantage enabled industry to grow rapidly in the 1950's, '60's and ' 70's, producing great economic and social gains for B.C. citizens. Low log costs facilitated the building of modern mills. Competitive log costs supported gradual increases in B.C. labour income to exceed Washington, for example, by about 20%. Stumpage revenues to government steadily increased, to the highest levels in Canada.

5. Extracts from recent reports show that Federal and B.C. government revenues, including all taxes, per M3 of harvest in B.C. have risen to $75.75 Cdn per M3 or about $5.55 billion on the total harvest of 74 million M3. It is considered that B.C. cannot continue this and still be competitive in world markets.

6. In the forest products industry, it is a truism that log costs must be competitive to support cost competitiveness delivered to world markets.

Summary

1. B.C. has lost its competitive advantage, in world markets, of low cost logs. In 1990 B.C. coast logs had the highest cost of logs delivered sawmills, compared to the six largest competing regions in North America.

2. Criticisms of B.C. logging practices have stirred up public opinion in world markets to the point where implementation of a forest stewardship Code, and a public information campaign, are considered necessary to restore the credibility of the B.C. forest industry in world markets. Despite the $1.5 billion now spent by the B.C. government and industry on silviculture and environmental responsibility, very large new amounts will have to be spent on Code development, auditing, on international certification, and on public information.

3. Neither the government nor industry has any surplus capital to spend on these programs. The cost of logs in B.C. is now too high in relation to many major competing regions.

4. The new programs will have to be done slowly, thoroughly, and frugally, with a bare minimum of extra cost burden for industry, and with a reduction rather than an increase in the cost of the Ministry of Forests and in forestry administrative costs of industry.

5. It is considered a necessity that the MOF not add an extra "layer" of administrators to implement the forest stewardship code. The program will have to be carried out by industry, with the Forest Service restricted to those functions that cannot be performed by industry, such as the setting of objectives, the monitoring of results compared to objectives, and the organizing of an independant audit procedure, etc.

APPENDIX A

Proposed Principles of the Code, as Presented by the Forest Resources Commission

Stated Principles

- The Code should be based on integrated resource management for all forest values, including fish and wildlife, air, water, soil, range, recreation and timber management.
- The Code should recognize that the physical and biological capacity, including biodiversity, of the forest is a key to the long-term sustainability of all resources.
- The safety of humans should be considered a high priority in timber harvesting activities.
- The economic viability and international competitiveness of the timber industry should be maintained through cost effective standards and implementation processes.
- There should be an "all encompassing code" containing principles and prescriptions.
- Provincial, regional and ecological requirements must be recognized in the development of management practices and processes.
- Optimal standards for good forest stewardship will only evolve within a system that encourages good practices and penalizes poor practices.
- Enhanced stewardship and public accountability can be best achieved through a system of established standards for practices and processes, which can be assessed by independent audit.
- The Code should be explicitly linked to the land use planning process.
- The Code should be based on the existing policies, practices and experience acquired over time.
- Practices are evolutionary so there should be a process of review in response to new science and changing public values.
- The Code should be implemented in an open, verifiable and accountable manner.
- There must be a systematic process for public input in the development, review and implementation of the Code.
- The Code should be developed in an open and visible manner.
- The Code should encourage users to become properly trained.

APPENDIX B

Post 1987 Regulatory Burden and Cost Impacts - 1991 Data
Estimates by One B.C. Company

	Total Costs Per Year (000)
Category I Costs Associated with Logging an Area	
Pre-Harvest Silvicultural Prescriptions	450
Small Business Forest Enterprise Program Accommodation	100
(costs of loss of AAC have not been included)	
Category II Costs Associated with Forestry and Logging Planning	
Reforestation thru to Free Growing Obligations	6300
Max. density G/L to Basic Spacing	750
Inter-tree Spacing Regln. for Planting	119
Category III New Forestry & Techniques & Associated Costs on 25% of the Volume Logged	
Harvest Block Size Reduction for Aesthetics	450
Harvest Systems - new site disturbance restraints	
- new system for slope, size	
- new profile timber areas	
- harvest diseased stands	
- constraints - visual quality	3500
Waste Surveys, Unrecovered Costs	46
Waste Billings	25
Site Disturbance/Degradation Surveys	10
Site Degradation Billings	1000
Cut Block Traversing to New Standards, GPS, Aerial	60
Silvic. Records & For. Mat/Planning Data Bases	50
Smoke Mgt Guidelines, Better landing/ Pile Burning	140
Increased Spring Burning	100
G/S Computer Modelling/Spatial Record Diagrams	50
Log Cost/AMV/Chip Cost Surveys	23
Reduced Overhead Allce on MDF/Indy Projects	45
Fuel Storage Guidelines for Woodlands-Berms, etc	60
New Engineered Roads/Trails Standards	420
Limited Liability Policy Removed For Broadcast Burning	125
Increased Permitting Processes, Appeals re Herbicides, Waste & Regen Surveys	13

	Total Costs Per year (000)
Increased Trade Assoc, Meetings, Committee Involvement Due Loss of Client Status With MOF Political Decisions, Other Ministries Conflicting with MOF Guidelines, MOF Not Leading as Regulatory Agency	36
Multiple Licensee Silvicultural Info. Systems Reporting	104
Category IV True Integrated Resource Management Costs To Accommodate Other Resource Values	
Digital Terrain Modelling of Harvest Block Design	65
Inventories of Other Resource Values - Wildlife, Recreation	75
Hydrological & Terrain Sensitivity Analysis, Studies	50
New Timber Cruising Guidelines - Root Rots, Uneven Age, etc.	140
Public Involvement - MWP's, LRUP's, CAMP's, CRMP's	54
Public Involvement - Public Education Tours, Brochures	125
Grazing Guidelines Accommodation - Cattle Guards, Refencing	80
Guides/Outfitters Accommodation, Buffer Strips	35
Back Country Heli-Skiing, Hiking, Accommodation	28
Road Deactivation for Access Management, Wildlife	200
Rehab of Roads, Landings, Skid Trails, V.Q.O.'s etc	300
Environmental Standby/Workloads, Break-up, Floods	14
Mtnce of Public Roads by Licencee - Grading, Gravelling, Signs, Dust Control	940
Structure Replacement on F.S. Roads by Industry Due Lack of Gov't Funding and/or "Waterbedding" of Appraisal Allowances - e.g. Replacing Bridges, etc.	1544
Total, Post 1987 Regulatory Burden Costs	**$17,626**

Glossary of Terms

AAC - Annual Allowable Cut - BCFS estimates of annual cutting for sustained harvesting.

BCFS - British Columbia Forest Service

FSC - Forest Stewardship Code

FBM - Foot Board Measure - lumber 1 inch thick by 1 foot long by one foot wide.

MOF - Ministry of Forests

MM - Million

M3 - Cubic metre

NSR - Not-Satisfactorily-Restocked Crown forest land

Pre-harvesting Costs - include a pro-rated share of:

- resource management
- engineering and layout
- cruising
- head office forestry and engineering
- regional office forestry and engineering
- allocation of general and administrative costs

TFL - Tree Farm Licence - 25 year tenure rights, replaceable, of major licensees.

TSHL - Timber Sale Harvesting Licence

Forest Licence - 15 year tenure rights, replaceable, of large licensees - formerly called TSHL.